

Broadcast/ Production System General Catalog 2000

NTSC/PAL/SECAM

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HDCAM Camcorders/VTRs

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HDW-700A

HDCAM Camcorder

The HDW-700A HD Camcorder combines a HD color video camera, of which effective picture elements $1920(H) \times 1080(V)$ and which uses 2/3-inch FIT CCD imagers with 2,200,000 pixels with an HDCAM portable video cassette recorder. Its excellent portability and dust and drip-proof construction makes it ideal as a camcorder for ENG, EFP and the other purposes. The introduction of a new method of processing HD digital signal improves the image quality even further and simplifies setup operations.

•Superb picture quality of HDCAM format in the VTR section •2/3-inch, 2,200,000 pixels of FIT CCDs in the camera section provide an high-resolution 16:9 pictures •Compact, lightweight and ergonomic body design suitable for various applications •Existing 2/3-inch lens can be used •Digital signal processing improves picture quality, stability and reliability •A setup card system can memorize various parameter settings and instant recall •Electronic shutter such as ECS and S-EVS provides blur-free images •A simple switch operation enables automatic adjustment of black set, black balance and white balance •Various warning indicator •Dual filter wheels of Neutral density and

Supplied Accessories: HDVF-20, HD Electric Viewfinder (1)

Color temperature control

Microphone, Super cardioid directional, external

power supply type (1) VCT-14, Tripod adaptor (1) Shoulder strap (1) Rain cover (1) BSC-1, Setup card (1) Tuner fitting (1) Operation page 1 (1)

Maintenance manual (1)
Optional accessories: BP-L60A/L90A, Lithium-ion battery

BC-L100, Battery charger AC-550A, AC Adaptor

BCT-40HD/22HD, HDCAM tape cassette BKW-401, Viewfinder rotation bracket Part No. 1-547-341-11, Fog-proof filter Part No. 3-174-685-01, 1/8 ND filter Part No. 3-174-683-01, 1/32 ND filter Part No. 3-174-682-01, Cross filter Part No. 3-186-442-01, Mount ring HKCA-701A, Camcorder adaptor RM-B150. Remote Control Unit

C-74, Microphone LC-HD7, Carrying case



	HDW-700A
Mass	Approx. 8 kg (17 lb 10 oz) with lens, cassette and BP-L60A
Power requirements	DC12 V (+5.0 V/-1.0 V)
Power consumption Operating temperature Storage temperature	40 W (With 12 V power supply, rec mode)
Operating temperature	0 °C to +40 °C (+32 °F to +104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to + 140 °F)
Operating humidity	25 % to 80 % (relative humidity)
Continuous operating time	Approx. 80 min (with BP-L60A)
Genlock video input	BNC, 1.0 Vp-p, 75 Ω
Time code input	BNC, 0.5 V to 18 Vp-p, 10 kΩ
Audio CH1/CH2 input	XLR-3-31 type (female), -60 dBu/+4dBu selectable, high impedance, balanced
MIC input	XLR-3-31 type (female), -60 dBu
Monitor output	BNC x 3 (Y, P _B , P _R), 1.0 Vp-p, 75 Ω, unbalanced
Audio output	XLR-3-31 type (female), 0 dBm
Time code output	BNC, 1.0 Vp-p, 75 Ω
Earphone	Mini-jack, 8 Ω, -∞ to −18 dBs variable
DC input	XLR 4-pin (male), 11 to 17 VDC
DC output	11 to 17 VDC, Max. 100mA
Lens	12-pin
Remote	8-pin
Recording format	HDCAM
Tape speed	Approx. 96.7 mm/s
Playback/Recording time	Max. 40 min with BCT-40HD cassette
Fast forward time	Approx. 6 min with BCT-40HD
Rewind time	Approx. 6 min with BCT-40HD
Recommended tape	Sony BCT-40HD/22HD
Sampling frequency	Y: 74.25 MHz, P _B /P _R : 37.125 MHz
Quantization	10 bit/sample (8 bit sample for compression process)
Error correction	Reed-Solomon code
Error concealment	Adaptive three dimensional
Fraguency response	20 Hz to 20 kHz, +0.5 dB/-1.0 dB
Dynamic range	85 dB min. (emphasis ON)
Distortion	0.08 % Max.
Dynamic range Distortion Cross talk Wow and flutter	-70 dB
Wow and flutter	Below measurable limit
Pickup device	3-chip 2/3-inch FIT type CCD
Picture elements	2,200,000
Optical system	F1.4 prism
Built-in filters	A: Cross B: 3200K D: 6300K
Built-iii lillers	1: Clear 2: 1/4 ND 3: 1/16 ND 4: 1/64 ND
Shutter speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)
Clear scan	(ECS) 30.0 to 7000 Hz
John Souri	(S-EVS) 0 to 100 %
Lens mount	Special bayonet mount
Sensitivity	F8.0 at 2,000 lux, 89.9 % reflective
·	2.0-inch monochrome
CRT	
Controls Horizontal resolution	BRIGHT control, CONTRAST control, PEAKING control, TALLY switch , ZEBRA switch, Display/Aspect switch
CRT Controls Horizontal resolution Microphone	500 TV Lines (at center) Ultra-directional (detachable)

HDW-500

HDCAM Digital Videocassette Recorder

The HDW-500 is a high definition digital videocassette recorder using the HDCAM format. Comparable to a conventional 1/2-inch VTRs in size, weight and ease-ofuse, the HDW-500 is a small, lightweight high definition digital VTR using integrated circuit technology. •Superb picture quality of HDCAM format •Powerful error correction codes •High-performance, high-accuracy heads and drum with dynamic tracking™ technique •Various input interfaces include SMPTE 292M, BTA S-004, -005A, -006A, ARIB STD B-4 high definition component serial digital interface format •Various output interfaces include D1 SDI or D2 SDI and analog composite outputs (Optional HKDV-501A required) •Easy-to-maintain plug-in boards •Various remote interfaces include RS-422A, RS-232C and Parallel 50-pin interfaces (Optional BKDW-509 required) •Digital signal processing takes 4:2:2 digital component signal according to ITU-R709/SMPTE 274M/BTA S-002 standards •AES/EBU digital audio and analog audio input/output •Internal time code generator and reader •Computer servo system •Self-diagnostic system

Supplied Accessories: AC power cord (1)

rack mountable

RCC-5G, 9-pin remote cable (1)

PSW4 x 16 screws, for rack mounting (4)

SRAM 64KB Memory card (1) Operation manual (1)

•Compact, lightweight, low power consumption and 19-inch

Maintenance manual Part 1 (1)

Optional accessories: HKDV-501A, HD-SD Converter Board HKDV-502, HD Line Converter Board

HKDV-502, HD Liftle Converter Board HKDV-503, HD Digital Video Controller HKDV-504, HD Dubbing Interface Board HKDV-505, HD Editing Processor Board

HKDV-506A, SDTI Board HKDV-507, HD Pull Down Board BKDW-509, Parallel 50-pin Interface Kit RMM-110, Rack Mount Adapter BCT-HD12CL, Cleaning Cassette

BCT-124HDL/64HDL/40HD/22HD, HDCAM Tape

Cassette





Spe	cifications	
		HDW-500
	Power requirements	100 to 240 VAC (+/-10 %, 50/60 Hz)
	Power consumption	230 W
	Operating temperature	+5 °C to +40 °C (+41 °F to +104 °F)
	Storage temperature	-20 °C to +60 °C (-4 °F to + 140 °F)
_	Operating humidity	25 % to 80 % (relative humidity)
General	Mass (Approx.) Dimensions(W x H x D)	35 kg (77 lb. 2 oz) 457 x 237 x 520 mm (16 3/4 x 9 3/8 x 20 1/2 inches)
Ĕ	Tape Speed	96.7 mm/s
Ö	Digital recording/playback time	Max. 124 min with BCT-124HDL cassette
	Fast forward/rewind time	Approx. 3 min with BCT-124HDL cassette
	Search speed range	+/- 50 times normal playback speed
	Servo lock time	1.0 s or less (form standby on)
	Load/unload time	6 s or less
	HD Serial V/A input	BNC (x1, with an input monitor), Serial digital (1.485Gbps), SMPTE 292M/BTA S-004/ITU-R.BT.709
	1125/60 Reference video input	BNC(x1 with a loop-through), Tri level sync, 0.6 Vp-p, 75Ω, sync negative
	1125/59.94 Reference video input	BNC(x1 with a loop-through), Tri level sync, 0.6 Vp-p, 75Ω, sync negative
	525 Reference video input	BNC(x1 with a loop-through), Black Burst, 0.286 Vp-p, 75Ω, sync negative
	Digital audio input (CH1/2 3/4)	BNC (x2 with 2 loop-through), AES/EBU
	Analog audio input (CH1/2/3/4/Cue)	XLR 5-pin type (male),
		Low Off: -60 dBu, high impedance, balanced
		High off: +4 dBu, high impedance, balanced
		High On: +4 dBm, 600 Ω termination, balanced
	Time code input	XLR 3-pin type (male, x1), 0.5 to 18 Vp-p, 10 k Ω , balanced
	Dubbing input (option required)	BNC (x1), Serial digital
	HD Serial V/A output	BNC (x4, with a character out), Serial digital (1.485Gbps), SMPTE 292M/BTA S-004/ITU-R.BT.709
ts	D1/D2 serial V/A output	BNC (x3, with a character out),
ם	(option required, D1/D2 switchable)	D1 serial digital (270Mbps)
\ \frac{1}{2}		D2 serial digital (143Mbps)
Š	Analog I/O down converted output	SMPTE 259M//CCIR-656-3 Composite: BNC (x1 with a character out), 1.0 Vp-p 75 Ω, sync negative
품	(option required)	525 Sync: BNC (x1 Black burst, 0.286 Vp-p, 75 Ω, sync negative
Inputs/Outputs	Analog I/O Reference output	1125 Sync: BNC (x2) Tri level sync, 0.6 Vp-p, 75 Ω, sync negative
_	Digital audio output (CH1/2, 3/4)	BNC (x2), AES/EBU, unbalanced
	Analog audio input (CH1/2/3/4/Cue)	XLR 3-pin type (female x5), +4 dBm, (with a 600 Ω load) low impedance, balanced
	Monitor output (L/R)	XLR 3-pin type (female x2), +4 dBm, (with a 600 Ω load) low impedance, balanced
	Time code output	XLR 3-pin type, (female x1), 2.2 Vp-p, low impedance balanced,
	Phones	JM-60 stereo phone jack, -∞ to −12 dBu (with an 8 Ω load), unbalanced
	Dubbing output (option required)	BNC (x1), Serial digital
	Remote 1 input	D-sub 9-pin, female, Sony 9-pin remote interface
	Remote 1 output	D-sub 9-pin, female, Sony 9-pin remote interface
	RS-232C	D-sub 25-pin, female
	Video Control	D-sub 9-pin, female (for optional HKDV-503)
	Parallel remote Panel remote	D-sub 50-pin, female (optional BKDW-509 required) D-sub 15-pin, female
		1 /
0 0	Sampling frequency	Y: 74.25 MHz, PB/PR: 37.125 MHz
anc a	Quantization	10 bits/sample (Compression 8 bits/sample) Coefficient recording system
Ĩ Ĕ	Compression Channel coding	S-NRZI PR-IV
Digital video performance	Error correction	Reed-Solomon code
ے ق	Error concealment	Adaptive three dimensional
o *	Bandwidth	Y: 0 to 5.75 MHz +0.5 dB/-3.0 dB
ance	S/N ratio	56 dB or more
E E	Y/C delay	15 ns or less
ut er	K Factor (2T Pulse)	1 % or less
Analog composite output erformance**	Output SCH phase	Based upon RS-170A/CCIR R.624-3
	Sampling frequency	48 kHz (synchronized with video)
Digital audio perfprmance	Quantization	20 bits/sample
<u>=</u> =	Wow & flutter	Below measurable level
ig gi	Headroom	20 dB (or 18 dB selectable)
□ ≅	Emphasis	T1 = 50 μs, T2 = 15 μs (on/off selectable in recording mode)
=	A/D quantization	20 bits/sample
outpi	D/A quantization	20 bits/sample
dio	Frequency response	20 Hz to 20 kHz, +0.5 dB/-1.0 dB (0 dB at 1 kHz)
Analog audio output performance	Dynamic range	More than 95 dB (at 1 kHz emphasis on)
Amak	Distortion	Less than 0.05 % (at 1 kHz, emphasis on, reference level)
	Cross talk	Less than –90 dB (at 1 kHz, between any two channels)
Cue track	Frequency response	90 Hz to 12 kHz +/-3dB
tra	S/N ratio	More than 45 dB (at 3 % distortion level)
ne	Distortion Wow & fluttor	Less than 2 % (T.H.D at 1 kHz reference level)
3	Wow & flutter	Less than 0.2 % rms

^{*}This model is not adjusted to PAL signal standard.

** (with optional HKDV-501A)

HDW-250

HDCAM Digital Portable VTR

The HDW-250 is a high definition digital portable videocassette recorder using the HDCAM format. Comparable to a conventional 1/2-inch portable VTRs in size, weight and ease-of-use, the HDW-250 is a small, lightweight high definition digital VTR using integrated circuit technology.

•Superb picture quality of HDCAM format •Ergonomic body design with compact, lightweight and low power consumption enables flexible operation in the field •Highperformance, high-accuracy heads and drum with dynamic tracking™ technique •Comprehensive LCD menu display •Input signals selectable, HD SDI or Analog HD component from the camera unit •HD SDI output and HD analog component output are available. With a built-in down converter, SD analog composite signal can be output •Remote interfaces include RS-422A and RS-232C (selectable) •Digital signal processing takes 4:2:2 digital component signal according to ITU-R709/SMPTE 274M/BTA S-002 standards •4 channels of analog audio input/output •Internal time code generator and reader •Computer servo system

Supplied Accessories: Shoulder belt (1)

Operation manual (1)

Maintenance manual Part 1 (1)

Optional accessories: BCT-HD12CL, Cleaning cassette

BCT-124HDL/64HDL/40HD/22HD, HDACM tape

cassette

BP-L60A, Rechargeable lithium-ion battery BC-L100, Battery charger for BP-L60A RM-B150, Remote control unit

AC-550, AC adapter AC-DN2A, AC adapter



-	cifications			
	Daniel de la contraction de la	HDW-250		
	Power requirements	12 VDC (+5.0 V/-1.0 V) Approx. 40 W (save mode)/52W (rec mode), Confi. OFF		
	Power consumption			
	Operating temperature Storage temperature	0 °C to +40 °C (+32 °F to +104 °F)		
		-20 °C to +60 °C (-4 °F to + 140 °F)		
	Operating humidity	25 % to 80 % (relative humidity)		
a.	Mass (Approx.)	7.8 kg (17 lb. 3 oz)		
neı	Dimensions(W x H x D) Tape Speed	317 x 154 x 349 mm (12 1/2 x 5 7/8 x 13 3/4 inches) 96.7 mm/s		
General	Digital recording/playback time	Max. 124 min with BCT-124HDL cassette		
	Fast forward/rewind time	Approx. 7 min with BCT-124HDL cassette		
	Search speed range	+/- 8 times normal playback speed (2/5/8 times selectable)		
	Servo lock time	1.0 s or less (form standby on)		
	Load/unload time	4.5 s or less		
	Battery	BP-L60A (Lithium-ion) or BP-90A (Ni-Cd)		
	HD Serial V/A input	BNC (x1, embedded 4 channels of audio), HD Serial digital, SMPTE 292M/BTA S-004/ITU-R.BT.709		
		, , , , , , , , , , , , , , , , , , ,		
	HD Serial V/A output Camera input	BNC (x1, embedded 4 channels of audio), HD Serial digital, SMPTE 292M/BTA S-004/ITU-R.BT.709 26-pin(x1),		
	Camera input	, , ,		
		Analog component video Y:1.0 Vp-p, 75 Ω , sync negative, PB/PR: 0.7 Vp-p, 75 Ω		
		Analog audio: -60/-20/+4 dBu selectable, high impedance, balanced		
		Reference sync output: HD Tri level sync, 0.6 Vp-p, 75 Ω, sync negative		
		Return video output: Y: 1.0 Vp-p, 75 Ω, sync negative		
	E2E Reference vides innut	Power supply for camera: 10.6 to 17 V, Max. 5 A		
Ħ	525 Reference video input	BNC(x1), Black Burst, 0.286 Vp-p, 75 Ω, sync negative		
Input/output	1125/60 Reference video input	BNC(x1 with a loop-through), Tri level sync, 0.6 Vp-p, 75Ω, sync negative		
no,	1125/59.94 Reference video input	BNC(x1 with a loop-through), Tri level sync, 0.6 Vp-p, 75Ω, sync negative		
Lt.	Analog HD component monitor output	BNC (x3), Y/P _B /P _R : 0.1 Vp-p, 75 Ω, sync negative, BTA S-001B, superimpose on/off selectable		
ln	Analog composite monitor output	BNC (x1), 1.0 Vp-p, 75 Ω, superimpose on/off selectable		
	Analog audio input (Ch1/2/3/4)	XLR 3-pin type (male, x4), -60/-40/+4 dBu selectable, high impedance, balanced		
	Analog audio output (CH1/2/3/4)	XLR 3-pin type (female, x4), +4 dBu (0 dBu), low impedance, balanced		
	Headphone	Stereo standard jack (x1), -17 dBu		
	Earphone	Stereo mini jack (x1), -17 dBu		
	Time code input	BNC (X1), 0.5 to 18 Vp-p, impedance: 10 kΩ +/-10 %		
	Time code output	BNC (X1), 1.0 Vp-p (75 Ω)/ 2.2Vp-p (10 kΩ)		
	Remote	D-sub 9-pin, female, Sony 9-pin remote interface or RS-232C selectable		
	DC input	XLR 4-pin type (male x1), 12 V		
	Camera remote	8-pin, camera remote control/Sony camera command system protocol (selectable)		
	Sampling frequency	Y: 74.25 MHz, P _B /P _R : 37.125 MHz		
Digital video performance	Quantization	10 bits/sample (Compression 8 bits/sample)		
ı viç	Compression	Coefficient recording system		
gita	Channel coding	S-NRZI PR-IV		
百월	Error correction	Reed-Solomon code		
	Error concealment	Adaptive three dimensional		
	Bandwidth	Y: 0.5 to 21.0 MHz +/-0.5 dB, P _B /P _R : 0.5 to 7.00MHz +/-0.5 dB		
Digital input t analog compon output performs	S/N ratio	58 dB or more		
igital log c	Y/C delay	15 ns or less		
ana	K Factor (2T Pulse)	1 % or less		
0 ± 9	A/D quantization	10 bits/sample		
Analog component to analog component output performance	Bandwidth	Y: 0.5 to 21.0 MHz +/-1.0 dB, P _B /P _R : 0.5 to 7.00MHz +/-1.0 dB		
com	S/N ratio	56 dB or more		
nalog	K Factor (2T Pulse)	2 % or less		
A P	Emphasis	T1 = 50 μ s, T2 = 15 μ s (on/off selectable in recording mode)		
g ce	A/D quantization	10 bits/sample		
analo	Bandwidth	0 to 5.5 MHz +/-0.7 dB		
Analog component to analog composite output performance	S/N ratio	56 dB or more		
boner	Differential gain	2 % or less		
comp	Differential phase	2° or less		
alog	Y/C delay	15 ns or less		
Com	K Factor (2T Pulse)	1 % or less		
(t)	Sampling frequency	48 kHz (synchronized with video)		
nce	Quantization	20 bits/sample		
nai	Input A/D quantization	20 bits/sample		
pri	Output D/A quantization	18 bits/sample		
audio perfprmance	Frequency response	20 Hz to 20 kHz, +0.5 dB/-1.0 dB (0 dBu at 1kHz)		
ğ	Dynamic range	100 dB or more (at 1kHz emphasis ON)		
dio	Distortion	0.03 % or less (at 1kHz emphasis ON)		
anı	Cross talk	-80 dB or less (at 1kHz, between D/A channels)		
a	Wow & flutter	Below measurable level		
		20 dB (18 dB)		
g	Headroom	20 UD (10 UD)		
Digital	Headroom Emphasis	T1 = 50 µs, T2 = 15 µs (on/off selectable)		

^{*}This model is not adjusted to PAL signal standard.



HDCAM Digital Videocassette Recorder

The HDW-F500 is a high definition digital videocassette recorder using the HDCAM format. Comparable to a conventional 1/2-inch VTRs in size, weight and ease-ofuse, the HDW-F500 is a small, lightweight high definition digital VTR using integrated circuit technology. Furthermore, it has a multi-format recording capability of 23.976/24/25/29.97/30 progressive and 50/59.94/60 interlace, at the resolution of 1920 x 1080 pixels. •Superb picture quality of HDCAM format •Supports 1080/24PsF format which is defined as ITU-R.BT709-3 HDTV Standards for Production and International Programme Exchange Playback compatibility with existing HDCAM format, recorded at 59.54/60 Hz •Powerful error correction codes •Longer recording time of Max.155 minutes (24P mode) •High-performance, high-accuracy heads and drum with dynamic tracking™ technique •Various output interfaces include D1 SDI (525/625) or D2 SDI (525 only) and analog composite outputs (Optional HKDV-501A required) •480 output via dual-link SDI and analog composite (NTSC/PAL) •Easy-to-maintain plug-in boards such as down converter and pull-down engine •Various remote interfaces include RS-422A, RS-232C and Parallel 50-pin interfaces (Optional BKDW-509 required) Digital signal processing takes 4:2:2 digital component signal •AES/EBU digital audio and analog audio input/output •Internal time code generator and reader •Computer servo system •Self-diagnostic system •Compact, lightweight, low power consumption and 19-inch rack mountable

Supplied Accessories: AC power cord (1)

RCC-5G, 9-pin remote cable (1) PSW4 x 16 screws, for rack mounting (4)

SRAM 64KB Memory card (1)

Operation manual (1)
Maintenance manual Part 1 (1)

Optional accessories: HKDV-501A, HD-SD Converter Board

HKDV-502, HD Line Converter Board HKDV-503, HD Digital Video Controller HKDV-504, HD Dubbing Interface Board HKDV-505, HD Editing Processor Board

HKDV-506A, SDTI Board

HKDV-507, HD Pull Down Board BKDW-509, Parallel 50-pin Interface Kit RMM-110, Rack Mount Adapter BCT-HD12CL, Cleaning Cassette

BCT-124HDL/64HDL/40HD/22HD, HDACM tape

cassette

-8-

Spe	cifications	
		HDW-F500
	Power requirements	100 to 240 VAC (+/-10 %, 50/60 Hz)
	Power consumption	230 W
	Operating temperature	+5 °C to +40 °C (+41 °F to +104 °F)
	Storage temperature	-20 °C to +60 °C (-4 °F to + 140 °F)
	Operating humidity	25 % to 80 % (relative humidity)
	Mass (Approx.)	35 kg (77 lb. 2 oz)
General	Dimensions(W x H x D)	427 x 237 x 520 mm (16 3/4 x 9 3/8 x 20 1/2 inches)
eu	Tape Speed	77.4 mm/s (24P mode)
G	• •	, ,
	Digital recording/playback time	Max. 155 min with BCT-124HDL cassette (24P mode)
	Fast forward/rewind time	Approx. 3 min with BCT-124HDL cassette
	Search speed range	+/- 60 times normal playback speed (24P mode)
	Servo lock time	1.0 s or less (form standby on)
	Load/unload time	6 s or less
	HD Serial V/A input	BNC (x1, with an input monitor), Serial digital (1.485Gbps), SMPTE 292M/BTA S-004/ITU-R.BT.709
	HD Reference video input	BNC(x1 with a loop-through), Tri level sync, 0.6 Vp-p, 75Ω, sync negative
	SD Reference video input	BNC(x1 with a loop-through), Black Burst, 0.286 Vp-p, 75Ω, sync negative
	Digital audio input (CH1/2 3/4)	BNC (x2 with 2 loop-through), AES/EBU
	Analog audio input (CH1/2/3/4/Cue)	XLR 5-pin type (male),
	Analog addio input (Ci 11/2/3/4/Cde)	Low Off: -60 dBu, high impedance, balanced
		, 3 1
		High off: +4 dBu, high impedance, balanced
		High On: +4 dBm, 600 Ω termination, balanced
	Time code input	XLR 3-pin type (male, x1), 0.5 to 18 Vp-p, 10 kΩ, balanced
	Dubbing input (option required)	BNC (x1), Serial digital
	HD Serial V/A output	BNC (x4, with a character out), Serial digital (1.485Gbps), SMPTE 292M/BTA S-004/ITU-R.BT.709
_	Pull-down out (option required)	BNC x 2 (with character)
Input/output	D1 serial V/A output (option required)	BNC (x3, with a character out), D1 serial digital (270Mbps) SMPTE 259M
풀	Analog I/O down converted output	Composite: BNC (x1 with a character out), 1.0 Vp-p 75 Ω, sync negative
2	(option required)	SD Sync: BNC (x1 Black burst, 0.286 Vp-p, 75 Ω, sync negative
b	Analog I/O Reference output	1125 Sync: BNC (x2) Tri level sync, 0.6 Vp-p, 75 Ω, sync negative
=	Digital audio output (CH1/2 3/4)	BNC (x2), AES/EBU, unbalanced
	Analog audio input (CH1/2/3/4/Cue)	XLR 3-pin type (female x5), +4 dBm, (with a 600 Ω load) low impedance, balanced
	Monitor output (L/R)	
	. , ,	XLR 3-pin type (female x2), +4 dBm, (with a 600 Ω load) low impedance, balanced
	Time code output	XLR 3-pin type, (female x1), 2.2 Vp-p, low impedance balanced,
	Phones	JM-60 stereo phone jack, -∞ to −12 dBu (with an 8 Ω load), unbalanced
	Dubbing output (option required)	BNC (x1), Serial digital
	Remote 1 input	D-sub 9-pin, female, Sony 9-pin remote interface
	Remote 1 output	D-sub 9-pin, female, Sony 9-pin remote interface
	RS-232C	D-sub 25-pin, female
	Video Control	D-sub 9-pin, female (for optional HKDV-503)
	Parallel remote	D-sub 50-pin, female (optional BKDW-509 required)
	Panel remote	D-sub 15-pin, female
	Sampling frequency	Y: 74.25 MHz. P _B /P _R : 37.125 MHz
0.0	Quantization	10 bits/sample (Compression 8 bits/sample)
ideo	Compression	Coefficient recording system
<u> </u>		S-NRZI PR-IV
Digital vid performan	Channel coding	-
2 2	Error correction	Reed-Solomon code
	Error concealment	Adaptive three dimensional
Analog composite output performance (with optional HKDV-501A)	Bandwidth	Y: 0 to 5.75 MHz +0.5 dB/-3.0 dB
mpo VENE	S/N ratio	56 dB or more
e co	Y/C delay	15 ns or less
alog put optio	K Factor (2T Pulse)	1 % or less
Arith With	Output SCH phase	Based upon RS-170A/CCIR R.624-3
	Sampling frequency	48 kHz (synchronized with video)
용용	Quantization	20 bits/sample
añ	Wow & flutter	Below measurable level
Digital audio perfprmance	Headroom	20 dB (or 18 dB selectable)
Dig		,
	Emphasis	T1 = 50 μs, T2 = 15 μs (on/off selectable in recording mode)
2	A/D quantization	20 bits/sample
audio	D/A quantization	20 bits/sample
Analog audio put performar	Frequency response	20 Hz to 20 kHz, +0.5 dB/-1.0 dB (0 dB at 1 kHz)
per	Dynamic range	More than 95 dB (at 1 kHz emphasis on)
Ana	Distortion	Less than 0.05 % (at 1 kHz, emphasis on, reference level)
Ans	Cross talk	Less than -90 dB (at 1 kHz, between any two channels)
	Frequency response	90 Hz to 12 kHz +/-3dB
Cue track	S/N ratio	More than 45 dB (at 3 % distortion level)
e	Distortion	Less than 2 % (T.H.D at 1 kHz reference level)
S	Wow & flutter	Less than 0.2 % rms
	TTOW & HULLOI	Less than 0.2 /0 mis



HDCAM Camcorder

The HDW-F900 HD Camcorder combines a 3CCD HD color video camera, of which effective picture elements 1920(H) x 1080(V) with an HDCAM portable video cassette recorder. Together with its excellent picture quality, 12-bit A/D converter and advanced digital signal processor, this camcorder makes it ideal as a camcorder for electronic cinematography purposes. The introduction of a new method of processing HD digital signal improves the image quality even further and simplifies setup operations. Superb picture quality of HDCAM format in the VTR section, which enables multi-format recording of 23.976/24/25/29.97/30 progressive and 50/59.94/60 interlace at the resolution of 1920 x 1080 pixels •Supports 1080/24PsF format which is defined as ITU-R.BT709-3 HDTV Standards for Production and International Programme Exchange •2/3-inch, 2,200,000 pixels of FIT CCDs in the camera section provide high-resolution 16:9 pictures •Compact, lightweight and robust body design for various cinematography accessories to be attached •Digital signal processing improves picture quality, stability and reliability •Memory Stick™ setup system can memorize various parameter settings and provides instant recall •Electronic shutter such as ECS and S-EVS provides blurfree images •A simple switch operation enables automatic adjustment of black set, black balance and white balance •Various warning indicators •Dual filter wheels for Neutral density and Color temperature control •Assignable buttons

Supplied Accessories: HDVF-20, HD Electric Viewfinder (1)

Microphone, Super cardioid directional, external

power supply type (1) VCT-14, Tripod adaptor (1) Shoulder strap (1) Rain cover (1) Tuner fitting (1) Operation manual (1) Maintenance manual (1)

Optional accessories: HDCA-901, HD-SDI adapter
BP-L60A/L90A, Lithium-ion battery
BC-L100, Battery charger

AC-550A, AC Adaptor

BCT-40HD/22HD, HDCAM tape cassette BKW-401, Viewfinder rotation bracket Part No. 1-547-341-11, Fog-proof filter Part No. 3-174-685-01, 1/8 ND filter Part No. 3-174-683-01, Cross filter Part No. 3-174-682-01, Cross filter Part No. 3-186-442-01, Mount ring RM-B150, Remote Control Unit

C-74, Microphone LC-HD7, Carrying case

Preliminary Specifications

	HDW-F900	
Mass	Approx. 8 kg (17 lb 10 oz) with lens, cassette and BP-L60A	
Power requirements	DC12 V (+5.0 V/-1.0 V)	
Power consumption Operating temperature Storage temperature	40 W (With 12 V power supply, rec mode)	
Operating temperature	0 °C to +40 °C (+32 °F to +104 °F)	
Storage temperature	-20 °C to +60 °C (-4 °F to + 140 °F)	
Operating humidity	25 % to 80 % (relative humidity)	
Continuous operating time	Approx. 80 min (with BP-L60A)	
Genlock video input	BNC, 1.0 Vp-p, 75 Ω	
Time code input	BNC, 0.5 V to 18 Vp-p, 10 kΩ	
Audio CH1/CH2 input	XLR-3-31 type (female), -60 dBu/+4dBu selectable, high impedance, balanced	
MIC input	XLR-3-31 type (female), -60 dBu	
MIC input Monitor output Audio output Time code output Earphone DC input	BNC x 3 (Y, P _B , P _R or R/G/B), 1.0 Vp-p, 75 Ω, unbalanced	
Audio output	XLR-3-31 type (female), 0 dBm	
Time code output	BNC, 1.0 Vp-p, 75 Ω	
Earphone	Mini-jack, 8 Ω, -∞ to −18 dBs variable	
DC input	XLR 4-pin (male), 11 to 17 VDC	
DC output	11 to 17 VDC, Max. 100mA	
Lens	12-pin	
Remote	8-pin	
Recording format	HDCAM	
Tape speed	Approx. 77.4 mm/s (24P mode)	
Playback/Recording time	Max. 50 min with BCT-40HD cassette (24P mode)	
Fast forward time	Approx. 6 min with BCT-40HD	
Rewind time	Approx. 6 min with BCT-40HD	
Recommended tape	Sony BCT-40HD/22HD	
Sampling frequency	Y: 74.25 MHz, P _B /P _R : 37.125 MHz	
Quantization	10 bit/sample (8 bit sample for compression process)	
Error correction	Reed-Solomon code	
Error concealment	Adaptive three dimensional	
Eroguanay roopanaa	20 Hz to 20 kHz, +0.5 dB/-1.0 dB	
Dynamic range Distortion Cross talk Wow and flutter	85 dB min. (emphasis ON)	
Distortion	0.08 % Max.	
Cross talk	-70 dB	
Wow and flutter	Below measurable limit	
Wow and nation		
Pickup device Picture elements	3-chip 2/3-inch FIT type CCD 2,200,000	
	<u> </u>	
Optical system Built-in filters	F1.4 prism A: Cross B: 3200K C: 4300K D: 6300K	
Built-III lillers	1: Clear 2: 1/4 ND 3: 1/16 ND 4: 1/64 ND	
Optical system Built-in filters Shutter speed		
Clear scan	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) (ECS) 30.0 to 7000 Hz	
Ciedi Scali	(ECS) 30.0 to 7000 Hz	
Lens mount	Special bayonet mount	
	F10.0 at 2,000 lux, 89.9 % reflective	
Sensitivity		
CRT	2.0-inch monochrome	
Controls	BRIGHT control, CONTRAST control, PEAKING control, TALLY switch , ZEBRA switch, Display/Aspect switch	
Controls Horizontal resolution Microphone	500 TV Lines (at center)	

BSC-1 Pack

Setup card for HDW-700A

Package of four setup cards and soft case.



BKW-401

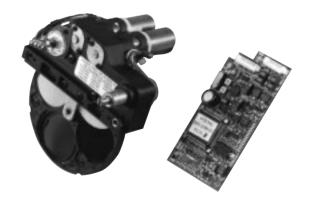
Viewfinder Rotation Bracket for HDW-700A/F900



BKDW-701

Servo filter unit

The BKDW-701 to be used with HDW-700A/F900, it can provide servo controlled filter wheels.



HDVF-20

2-inch HD B/W Viewfinder

•2-inch 16:9 widescreen B/W CRT viewfinder for HDW-700A/F900 •High resolution—500 TV lines at center in both 16:9 and 4:3 modes •16:9/4:3 switchable •The eye-piece is removable from the viewfinder to allow direct view of the CRT •Marker indication on/off function •Tally lamp for camera operatior is located on the viewfinder body for operational convenience. So that, the tally lamp can be seen even when not looking at the viewfinder screen. It also can be masked with a sliding cover. •Supplied with a new external microphone



New

HKDV-501A (Tentative)

HD-SD down converter board

By slotting HKDV-501A into HDW-F500/HDW-500, it enables output of 525 or 625 down converted signals.

HKDV-502

HD Line Converter Board

By slotting HKDV-502 into HDW-F500/500, you can select an effective scanning line number of 1,035 and 1,080. It also automatically switches between processing for movie and still portions of a picture, thus improving the vertical resolution during slow motion playback.

HKDV-503

HD Digital Video Controller

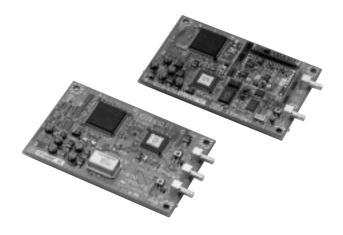
The HKDV-503 connects to the HDW-F500/500 HD digital VTR and controls the HD/SD output video signals and the image enhancer of the down converter built into the VTR. It can also be used as a remote controller for the HKPF-525 NTSC down converter board fitted to the PFV series.



HKDV-504

HD Dubbing Interface Board

By slotting HKDV-504 into HDW-500, it allows the input and output of special non-degrading video DUB signals.



HKDV-505

HD Editing Processor Board

By slotting the HKDV-505 into HDW-500, it allows CONFI playback during editing.

*Supplied with HDW-F500





HKDV-506A (Tentative)

SDTI board

By slotting the HKDV-506A into HDW-F500/500, it allows SDTI* output capability.

*Defined as SMPTE 305M.



HKDV-507 (Tentative)

HD Pull-down board

By slotting the HKDV-507 into HDW-F500, it allows 3:2 pull-down capability for HDW-F500.

BKDW-509

Parallel 50-pin interface kit for the HDW-F500/500



RMM-110

Rack mount kit

Designed for use in mounting HDW series Studio VTRs into 19-inch rack.



LC-HD7

Carrying case for HDW-700A/F900



RM-B150

Remote control unit

Designed to control HDW-700A HD camcorder and HDW-250 HD portable VTR.



BCT-124HDL/64HDL/40HD/22HD

BCT-HD series HDCAM tapes



BCT-HD12CL

Head cleaning videocassette tapes for HDCAM VTRs







DNW-7/7P	18
DNW-9WS/9WSP	20
DNW-90/90P	
DNW-90WS/90WSP	24
DNV-5	26
DNW-A75/A75P	28
DNW-75/75P	
DNW-A65/A65P	32
DNW-65/65P	
DNW-A28/A28P	36
DNW-A25/A25P	
DNW-A225/A225P	39
DNW-A220/A220P	
DNW-A100/A100P	41
DNW-A50/A50P	
DNW-A22/A22P	44
CA-701	
CA-702/702P	46
BKNW-25	
BKNW-103	47
BKNW-104	47
BKNW-105	
BKNW-118	
BKNW-119	48
BKNW-120	48
BKNW-121	48
BKNW-122	
BKNW-123	
BKNW-225	49
VA-DN1	49
WRR-855A	49
WRR-860A	49
WRR-810A	
LC-DN5	50
LC-DN7	50
LC-DN220	50
BKDW-505/506	50
RMM-111	51
BCT-12SXA/22SXA/32SXA/62SXA	
BCT-64SXLA/94SXLA/124SXLA/	
184SXLA/194SXLA	51

DNW-7(NTSC)/7P(PAL)

Betacam SX Camcorder

 Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Incorporates 10-bit/28MHz full digital signal processing in the camera section and Betacam SX digital recording in the VTR section •Same size cassette tape as Betacam SP provides longer recording time of up to 62 minutes on a single S-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Approximately 180 minutes of continuous operation with a BP-L90A lithium-ion battery and 120 minutes with a BP-L60A •Compact and lightweight design approximately 6kg including battery, tape and lens •Equipped with 2/3-inch Power HAD 1000 IT CCDs with 400K(NTSC) / 470K(PAL) picture elements •Auto Tracing White Balance (ATW) capability •Turbo Gain function •Provides Good Shot Mark and REC. Start Mark functions to speed the editing process •Variable speeds of electronic shutter for clear images of high-speed moving objects

NTSC: ½00, ½25, ½50, ½500, ½000, ½000 (s) PAL: ½00, ½250, ½500, ½000, ½000 (s)

• Equipped with a lightweight 1.5-inch monochrome viewfinder (with horizontal resolution of 600 TV lines) •Color playback in the field without an external adaptor •Viewfinder playback •Two-layer menu control system consisting of User Menus and Engineer Menus •Setup Card system to store a large number of setup parameters on removable setup cards so as to allow quick, easy and accurate camcorder settings •Slot-in mechanism to accommodate an optional WRR-855A Wireless Microphone Receiver •Internal light system •6-pin remote interface for connecting RM-P9 Remote Control Unit (option) •Full color genlock capability •Built-in time code regenerator •A camera tally on the viewfinder in addition to the tally function on the front and the back of a camcorder •Extensive LCD display indicating Time Code, CTL and User-bit data, Tape Remaining, Battery Capacity and audio recording levels •Stereo audio line output •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: Shoulder belt (1)

Microphone (1) XLR cap (4)

Maintenance manual <Part 1> (1)

Operation manual

Optional accessories: BSC-1-Pack Setup Card

WRR-855A Slot-in Wireless Microphone Receiver WRR-860A Wireless Microphone Receiver

(adaptor required)

WRR-810A Wireless Microphone Receiver

(adaptor required)

BP-L90A Rechargeable Lithium-ion Battery BP-L60A Rechargeable Lithium-ion Battery

AC-DN2A AC Adaptor
AC-550/550CE AC Adaptor
RM-P9 Remote Control Unit
CA-701 Camcorder Adaptor
CA-702/702P Camcorder Adaptor
CA-755/755P Camcorder Adaptor
LC-DN7 Carrying Case
BVF-55/55CE 5-inch Viewfinder

BVF-V10/V10CE 1.5-inch 4:3 B/W Viewfinder BVF-V20W/V20WCE 2-inch B/W Viewfinder BVF-VC10W 1.35-inch Color Viewfinder BKW-401 Viewfinder Rotation Bracket

VCT-14 Tripod Adaptor CAC-6 Return Video Selector





Lens, light, WRR-855A and battery are options.





Specifications

me	BNC (1), 1.0 Mini j	3 (13 lb 3 oz) .0V/-1.0V C mode) 32°F to +104°F) -4°F to +140°F) lative humidity) (with BP-L60A) (with BP-L90A) 0Vp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	DC 12V +5 29W (REC 0°C to +40°C (+3 -20°C to +60°C (-3 25% to 85% (rel Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0	.0V/–1.0V C mode) 32°F to +104°F) –4°F to +140°F) lative humidity) (with BP-L60A) (with BP-L90A) 0Vp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	DC 12V +5 29W (REC 0°C to +40°C (+3 -20°C to +60°C (-3 25% to 85% (rel Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0	.0V/–1.0V C mode) 32°F to +104°F) –4°F to +140°F) lative humidity) (with BP-L60A) (with BP-L90A) 0Vp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	29W (REC 0°C to +40°C (+3 -20°C to +60°C (-3 25% to 85% (rel Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0	C mode) 32°F to +104°F) -4°F to +140°F) lative humidity) (with BP-L60A) (with BP-L90A) 0Vp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	0°C to +40°C (+3 -20°C to +60°C (-3 25% to 85% (rel Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0	32°F to +104°F) -4°F to +140°F) lative humidity) (with BP-L60A) (with BP-L90A) 0Vp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	-20°C to +60°C (-25% to 85% (rel Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	-4°F to +140°F) lative humidity) (with BP-L60A) (with BP-L90A) DVp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	25% to 85% (rel Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-1, 1	lative humidity) (with BP-L60A) (with BP-L90A) (VP-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced (75Ω, sync negative					
	Approx. 120 min. Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sei BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	(with BP-L60A) (with BP-L90A) 0Vp-p, 75Ω 18Vp-p, 10kΩ electable, high impedance, balanced 75Ω, sync negative					
	Approx. 180 min. BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sei BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	(with BP-L90A) 0 Vp-p, 75Ω 18 Vp-p, 10 k Ω electable, high impedance, balanced 75Ω , sync negative					
input	BNC (1), 1.0 BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sei BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	Ω Vp-p, 75Ω 18 Vp-p, 10 k Ω electable, high impedance, balanced 75Ω , sync negative					
input	BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sei BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	18Vp-p, 10kΩ electable, high impedance, balanced '5Ω, sync negative					
input	BNC (1), 0.5 to XLR-3-31 type (2), -60dBu/+4dBu sei BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	18Vp-p, 10kΩ electable, high impedance, balanced '5Ω, sync negative					
input	XLR-3-31 type (2), -60dBu/+4dBu sel BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	electable, high impedance, balanced 75Ω, sync negative					
при	BNC (1), 1.0Vp-p, 7 BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j	75Ω, sync negative					
	BNC (1), 1.0Vp-p, 7 BNC (1), 1.0 Mini j						
	BNC (1), 1.0 Mini j	BNC (1), 1.0Vp-p, 75 Ω , sync negative					
	Mini j						
		BNC (1), 1.0Vp-p, 75Ω					
	XLR 5-pin ma	Mini jack					
	Earphone Mini jack Audio output XLR 5-pin male (stereo)						
	12-p	pin					
	6-pin 2-pin DC 12V max 30W						
	2-pin, DC 12V, max. 30W XLR 4-pin male with switch (for the optional AC-550/550CE)						
	4-pin (for wireless microp						
	Betaca	ım SX					
	59.515 mm/s (525 mode)	59.575 mm/s (625 mode)					
ne	Max. 62 min. with BC	,					
	•••						
	Sony BCT-30MA series						
	Sony UVWT-30MA series						
	Y: 13.5MHz						
	R-Y/B-Y: 6.75MHz						
	8bits/sample						
	Reed-solomon code						
	19/ or	locs					
	13115 0	1 1855					
1		·					
	16bits/s	ample					
e	20Hz to 20kHz ·	+0.5dB/–1.0dB					
hasis ON)	More tha	ın 85dB					
V. reference level)	Less than 0.08%						
	Less than -70dB						
	Below measurable limit						
1 (11)							
seiectable)							
	3-chip 2/3-inch Power	r HAD 1000 IT CCD					
	811(H) × 508(V)	795(H) x 596(V)					
	F1.4 prism	n system					
	·	•					
		1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S)					
		CLS: 50.0 to 10101Hz (312 steps)					
reflective)	F1:						
	Approx. 0.3lx (F1.4 lens	<u> </u>					
	63dB	61dB					
)	(without EVS) 400 TV lines	(without EVS) 480 TV lines					
)	(WILLIOUL EVO) 400 TV IIIIES	· · · · · · · · · · · · · · · · · · ·					
)	(with EVS) 450 TV lines	(with EVS) 530 TV lines					
)	(with EVS) 450 TV lines	, ,					
)	(with EVS) 450 TV lines 0.05% (all zones	s, without lens)					
	(with EVS) 450 TV lines 0.05% (all zones Below measurable l	s, without lens) level (without lens)					
	(with EVS) 450 TV lines 0.05% (all zones Below measurable I	s, without lens) level (without lens) ec.					
) IHz	(with EVS) 450 TV lines 0.05% (all zones Below measurable l	s, without lens) level (without lens) ec.					
	(with EVS) 450 TV lines 0.05% (all zones Below measurable I	s, without lens) level (without lens) ec. ypical)					
	(with EVS) 450 TV lines 0.05% (all zones Below measurable I 2 se 60% (Ty	s, without lens) level (without lens) ec. ypical) onochrome					
	(with EVS) 450 TV lines 0.05% (all zones Below measurable I 2 se 60% (Ty 1.5-inch mo	s, without lens) level (without lens) ec. ypical) onochrome G control, TALLY, ZEBRA, DISPLAY switches					
n ip ip ip in it is i	se s	S9.515 mm/s (525 mode)					

The specifications given above were measured by CA-701.

DNW-9WS(NTSC)/9WSP(PAL)

Betacam SX Camcorder

 Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Incorporates 10-bit/36MHz full digital signal processing in the camera section and Betacam SX digital recording in the VTR section •16:9/4:3 switchable •Same size cassette tape as Betacam SP provides longer recording time of up to 62 minutes on a single S-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Approximately 165 minutes of continuous operation with a BP-L90A lithium-ion battery and 110 minutes with a BP-L60A •Compact and lightweight design approximately 6kg including battery, tape and lens •Equipped with 2/3-inch Switchable 16:9/4:3 Widescreen Power HAD 1000 IT CCDs with 520K(NTSC) / 620K(PAL) picture elements •Auto Tracing White Balance (ATW) capability •Turbo Gain function •Provides Good Shot Mark & REC. Start Mark functions to speed the editing process •Variable speeds of electronic shutter for clear images of high-speed moving objects

NTSC: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S)

•Equipped with a wide 2-inch monochrome viewfinder (with horizontal resolution of 600 TV lines in 4:3 mode and 450TV lines in 16:9 mode) •Color playback in the field without an external adaptor •Viewfinder playback •Twolayer menu control system consisting of User Menus and Engineer Menus •Setup Card system to store a large number of setup parameters on removable setup cards so as to allow quick, easy and accurate camcorder settings •Slot-in mechanism to accommodate an optional WRR-855A Wireless Microphone Receiver •Internal light system •6-pin remote interface for connecting RM-P9 Remote Control Unit (option) •Full color genlock capability •Built-in time code regenerator •A camera tally on the viewfinder in addition to the tally function on the front and the back of a camcorder •Extensive LCD display indicating Time Code. CTL and User-bit data, Tape Remaining, Battery Capacity and audio recording levels •Stereo audio line output •High reliability and easy maintenance with sophisticated diagnostic system

Shoulder belt (1) Supplied accessories:

Microphone (1) XLR cap (4)

Maintenance manual <Part 1> (1)

Operation manual

BSC-1-Pack Setup Card Optional accessories:

WRR-855A Slot-in Wireless Microphone Receiver

WRR-860A Wireless Microphone Receiver

(adaptor required)

WRR-810A Wireless Microphone Receiver

(adaptor required)

BP-L90A Rechargeable Lithium-ion Battery BP-L60A Rechargeable Lithium-ion Battery

AC-DN2A AC Adaptor AC-550/550CE AC Adaptor RM-P9 Remote Control Unit CA-701 Camcorder Adaptor CA-702/702P Camcorder Adaptor CA-755/755P Camcorder Adaptor

LC-DN7 Carrying Case

BVF-V20W/V20WCE 2.0-inch 16:9 B/W Viewfinder BVF-VC10W 1.35-inch 16:9 Color Viewfinder

BKW-401 Viewfinder Rotation Bracket

VCT-14 Tripod Adaptor CAC-6 Return Video Selector





Lens, light, WRR-855A and battery are options. Lens with 'shrinker' function are recommended for WS models.





Specifications

		DN	W-9WS	DNW-	9WSP	
	Mass		Approx. 4.0kg			
	Operating mass		Approx. 6.0kg	, , ,		
	Power requirements	DC 12V +5.0V/-1.0V				
L	Power consumption	31.5W (REC mode)				
	Operating temperature		0°C to +40°C (+3	,		
	Storage temperature		-20°C to +60°C (,		
ш	Humidity		25% to 85% (rel			
	Continuous operating time	Approx. 110 min. (with BP-L60A)				
		Approx. 165 min. (with BP-L90A)				
	Genlock video input		BNC (1), 1.0	1 1 7		
-	Time code input		BNC (1), 0.5 to	• • • •		
	Audio CH-1/2 input/Mic input	XLF	R-3-31 type (2), -60dBu/+4dBu se		anced	
	Video output		BNC (1), 1.0Vp-p, 7			
	Test output	BNC (1), 1.0Vp-p, 75Ω, sync negative				
•	Time code output	BNC (1), 1.0Vp-p, 75Ω				
	Earphone		Mini j	•		
	Audio output	XLR 5-pin male (stereo)				
ш	Lens	12-pin				
⊩	Remote		6-p			
	Light		2-pin, DC12\	·		
	DC input		XLR 4-pin male with switch (fo			
	DC output		4-pin (for wireless microp	phone receiver), DC 12V		
T	Recording format		Betaca	ım SX		
	Tape speed	59.515 mm	m/s (525 mode)	59.575 mm/s	s (625 mode)	
	Playback/Recording time		Max. 62 min. with BO			
ľ	Fast forward time		Approx. 5.5 min. v	with BCT-62SXA		
	Rewind time		Approx. 5 min. w	vith BCT-62SXA		
	Recommended tape		Sony Betacam SX I	BCT-62SXA series		
			Sony BCT-3	0MA series		
		Sony UVWT-30MA series				
	Sampling frequency	Y: 13.5MHz				
		R-Y/B-Y: 6.75MHz				
	Quantization	8bits/sample				
	Error correction	Reed-solomon code				
	Video performance					
	K-factor (2T pulse)	1% or less				
	Y/R-Y/B-Y delay	15ns or less				
	Digital audio performance					
	Sampling frequency	48kHz (synchronized with video)				
	Quantization	16bits/sample				
	Frequency response	20Hz to 20kHz +0.5dB/-1.0dB				
	Dynamic range (emphasis ON)	More than 85dB				
	Distortion (at 1kHz, emphasis ON, reference level)		Less than			
	Cross talk (at 1kHz, reference level)		Less that			
	Wow & flutter		Below meas			
	Head room	200				
	Emphasis (ON/OFF selectable)		T1=50µs ,			
		16:9 MODE	4:3 MODE	16:9 MODE	4:3 MODE	
	Pickup device		3-chip 2/3-inch Power HAD 10			
	Picture elements	1038(F	H) x 504(V)	1038(H)	x 594(V)	
	Optical system		F1.4 prisn			
	Built-in filters		1: CLEAR 2:5600K+1/8ND			
	Shutter speed		½00, ½1000, ½2000 (S)		00, ½1000, ½000 (S)	
-	Clear scan	CLS: 60.1 to 7	7000Hz (260 steps)	CLS: 50.2 to 900	00Hz (310 steps)	
	Lens mount		Special bayo			
	Sensitivity (2000lx, 89.9% reflective)		FS	-		
	Minimum illumination		Approx. 0.35 lx (F1.4 le			
	Video S/N ratio (typical)		63dB		dB	
	Vertical resolution	,	EVS) 400 TV lines	, ,	VS) 480 TV lines	
		(with Super E	EVS) 450 TV lines	· ·	S) 530 TV lines	
-	Registration		0.05% (all zones	· · · · · · · · · · · · · · · · · · ·		
	Geometric distortion		Below measurable I	· ,		
	Warm-up time		2 se			
	Modulation depth at 5MHz	70% (Typical)	55% (Typical)	70% (Typical)	55% (Typical)	
	. 007			nochrome		
	CRT	BRIGHT control, CONTRAST control, PEAKING control, TALLY, ZEBRA, DISP		NDL ANCE TO L		
	Controls	BRIGHT conti	rol, CONTRAST control, PEAKIN	G control, TALLY, ZEBRA, DIS	SPLAY SWITCHES	
Jager		BRIGHT control 450 TV lines	trol, CONTRAST control, PEAKIN 600 TV lines	450TV lines	600 TV lines	

The specifications given above were measured by CA-701.

DNW-90(NTSC)/90P(PAL)

Betacam SX Camcorder

 Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Incorporates 10-bit/36MHz full digital signal processing in the camera section and Betacam SX digital recording in the VTR section •Same size cassette tape as Betacam SP provides longer recording time of up to 62 minutes on a single S-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Approximately 165 minutes of continuous operation with a BP-L90A lithium-ion battery and 110 minutes with a BP-L60A •Compact and lightweight design approximately 6kg including battery, tape and lens •Equipped with 2/3-inch Power HAD 1000 FIT CCDs with 520K(NTSC) / 620K(PAL) picture elements •Auto Tracing White Balance (ATW) capability •Turbo Gain function •Provides Good Shot Mark and REC. Start Mark functions to speed the editing process Variable speeds of electronic shutter for clear images of high-speed moving objects

NTSC: ½100, ½125, ½250, ½500, ½1000, ½2000 (s) PAL: ½60, ½125, ½250, ½500, ½1000, ½2000 (s)

•Equipped with a lightweight 1.5-inch monochrome viewfinder (with horizontal resolution of 600 TV lines) •Color playback in the field without an external adaptor •Viewfinder playback •Two-layer menu control system consisting of User Menus and Engineer Menus •Setup Card system to store a large number of setup parameters on removable setup cards so as to allow quick, easy and accurate camcorder settings •Slot-in mechanism to accommodate an optional WRR-855A Wireless Microphone Receiver •Internal light system •6-pin remote interface for connecting RM-P9 Remote Control Unit (option) •Full color genlock capability •Built-in time code regenerator •A camera tally on the viewfinder in addition to the tally function on the front and the back of a camcorder •Extensive LCD display indicating Time Code, CTL and User-bit data, Tape Remaining, Battery Capacity and audio recording levels •Stereo audio line output •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: Shoulder belt (1)
Microphone (1)

XLR cap (4)

Maintenance manual <Part 1> (1)

Operation manual

Optional accessories: BSC-1-Pack Setup Card

WRR-855A Slot-in Wireless Microphone Receiver WRR-860A Wireless Microphone Receiver

(adaptor required)

WRR-810A Wireless Microphone Receiver

(adaptor required)

BP-L90A Rechargeable Lithium-ion Battery BP-L60A Rechargeable Lithium-ion Battery

AC-DN2A AC Adaptor AC-550/550CE AC Adaptor RM-P9 Remote Control Unit CA-701 Camcorder Adaptor CA-702/702P Camcorder Adaptor CA-755/755P Camcorder Adaptor LC-DN7 Carrying Case

BVF-55/55CE 5-inch Viewfinder

BVF-V10/V10CE 1.5-inch 4:3 B/W Viewfinder BVF-V20W/V20WCE 2-inch B/W Viewfinder BVF-VC10W 1.35-inch Color Viewfinder BKW-401 Viewfinder Rotation Bracket

VCT-14 Tripod Adaptor CAC-6 Return Video Selector

BETACAM SX



Lens, light, WRR-855A and battery are options.





Specifications

pecifications	DNW-90	DNW-90P			
Mass	Approx. 4.0kg				
Operating mass	Approx. 6.0kg	The state of the s			
Power requirements	DC 12V +5.0				
·	31W (REC				
Operating temperature					
Power consumption Operating temperature Storage temperature	0 1				
Humidity	25% to 85% (relative humidity)				
Continuous operating time	Approx. 110 min. (• • • • • • • • • • • • • • • • • • • •			
genuinaeae eperaung ume	Approx. 165 min. (· ·			
Genlock video input	Genlock video input BNC (1), 1.0Vp-p, 75Ω				
Time code input	BNC (1), 0.5 to 1	• • •			
Audio CH-1/2 input/Mic input	XLR-3-31 type (2), -60dBu/+4dBu sele	• • •			
Video output	BNC (1), 1.0Vp-p, 75				
Test output	BNC (1), 1.0Vp-p, 75	, , ,			
Time code output	BNC (1), 1.0Vp-p, 75Ω				
Test output Time code output Earphone Audio output Lens Pometo	Mini jack				
Audio output	XLR 5-pin male (stereo)				
Lens	12-pi	· · · · · · · · · · · · · · · · · · ·			
Remote	6-pir				
Light	2-pin, DC12V,				
DC input	XLR 4-pin male with switch (for				
DC output	4-pin (for wireless microph				
Recording format	Betacan				
Tape speed	59.515 mm/s (525 mode)	59.575 mm/s (625 mode)			
Playback/Recording time	Max. 62 min. with BC	· · · · · · · · · · · · · · · · · · ·			
Fast forward time	Approx. 5.5 min. w				
Rewind time	Approx. 5 min. wit				
Recommended tape					
Trocommonaca tape	Sony Betacam SX BCT-62SXA series Sony BCT-30MA series				
	Sony UVWT-30MA series				
Sampling frequency	Y: 13.5				
January nadama,	R-Y/B-Y: 6				
Quantization	8bits/sample				
Error correction	Reed-solomon code				
Cuantization Error correction Video performance					
	1% or less				
K-factor (2T pulse) Y/R-Y/B-Y delay	15ns or less				
Digital audio performance					
Sampling frequency	48kHz (synchroniz	zed with video)			
Quantization	16bits/sa	ample			
Frequency response	20Hz to 20kHz +	-0.5dB/–1.0dB			
Dynamic range (emphasis ON)	More than	n 85dB			
Distortion (at 1kHz, emphasis ON, reference level)	Less than 0.08%				
Cross talk (at 1kHz, reference level)	Less than –70dB				
Wow & flutter	Below measurable limit				
Head room	20dE	В			
Emphasis (ON/OFF selectable)	T1=50µs , T	Γ2=15μs			
Pickup device	3-chip 2/3-inch Power I	HAD 1000 FIT CCD			
Picture elements	1038(H) x 504(V)	1038(H) x 594(V)			
Optical system	F1.4 prism	() ()			
Built-in filters	1: CLEAR 2:5600K+1/8ND 3				
Shutter speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S)	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S)			
Clear scan	CLS: 60.1 to 7000Hz (260 steps)	CLS: 50.2 to 9000Hz (310 steps)			
Lens mount Sensitivity (2000ly 89.9% reflective)	ECS: 30.4 to 58.3Hz (248 steps)	ECS: 25.4 to 48.7Hz (295 steps)			
Lens mount	Special bayor	net mount			
Sensitivity (2000lx, 89.9% reflective)	F9				
Minimum illumination Video S/N ratio (typical) Vertical resolution	Approx. 0.35 lx (F1.4 len:	s, +42dB Turbo Gain)			
Video S/N ratio (typical)	63dB	61dB			
Vertical resolution	(without Super EVS) 400 TV lines	(without Super EVS) 480 TV lines			
	(with Super EVS) 450 TV lines	(with Super EVS) 530 TV lines			
Registration	0.05% (all zones,	, without lens)			
Geometric distortion	Below measurable le	evel (without lens)			
Warm-up time		2 sec.			
Modulation depth at 5MHz	70% (Typ	pical)			
CRT	1.5-inch mon	nochrome			
Controls	BRIGHT control, CONTRAST control, PEAKING	3 control, TALLY, ZEBRA, DISPLAY switches			
	BRIGHT control, CONTRAST control, PEAKING 600 TV				

The specifications given above were measured by CA-701.

DNW-90WS(NTSC)/90WSP(PAL)

Betacam SX Camcorder

 Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Incorporates 10-bit/36MHz full digital signal processing in the camera section and Betacam SX digital recording in the VTR section •16:9/4:3 switchable •Same size cassette tape as Betacam SP provides longer recording time of up to 62 minutes on a single S-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Approximately 160 minutes of continuous operation with a BP-L90A lithium-ion battery and 105 minutes with a BP-L60A •Compact and lightweight design approximately 6kg including battery, tape and lens •Equipped with 2/3-inch Switchable 16:9/4:3 Widescreen Power HAD 1000 FIT CCDs with 520K(NTSC) / 620K(PAL) picture elements •Auto Tracing White Balance (ATW) capability •Turbo Gain function •Provides Good Shot Mark & REC. Start Mark functions to speed the editing process •Variable speeds of electronic shutter for clear images of high-speed moving objects

NTSC: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) PAL: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)

•Equipped with a wide 2-inch monochrome viewfinder (with horizontal resolution of 600 TV lines in 4:3 mode and 450TV lines in 16:9 mode) •Full color playback in the field without an external adaptor •Viewfinder playback •Twolayer menu control system consisting of User Menus and Engineer Menus •Setup Card system to store a large number of setup parameters on removable setup cards so as to allow quick, easy and accurate camcorder settings •Slot-in mechanism to accommodate an optional WRR-855A Wireless Microphone Receiver •Internal light system •6-pin remote interface for connecting RM-P9 Remote Control Unit (option) •Full color genlock capability •Built-in time code regenerator •A camera tally on the viewfinder in addition to the tally function on the front and the back of a camcorder •Extensive LCD display indicating Time Code, CTL and User-bit data. Tape Remaining, Battery Capacity and audio recording levels •Stereo audio line output •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: Shoulder belt (1)

Microphone (1) XLR cap (4)

Maintenance manual <Part 1> (1)

Operation manual

Optional accessories: BSC-1-Pack Setup Card

WRR-855A Slot-in Wireless Microphone Receiver

WRR-860A Wireless Microphone Receiver

(adaptor required)

WRR-810A Wireless Microphone Receiver

(adaptor required)

BP-L90A Rechargeable Lithium-ion Battery BP-L60A Rechargeable Lithium-ion Battery

AC-DN2A AC Adaptor AC-550/550CE AC Adaptor RM-P9 Remote Control Unit CA-701 Camcorder Adaptor CA-702/702P Camcorder Adaptor CA-755/755P Camcorder Adaptor

LC-DN7 Carrying Case

BVF-V20W/V20WCE 2.0-inch 16:9 B/W Viewfinder BVF-VC10W 1.35-inch 16:9 Color Viewfinder

BKW-401 Viewfinder Rotation Bracket

VCT-14 Tripod Adaptor CAC-6 Return Video Selector





Lens, light, WRR-855A and battery are options. Lens with 'shrinker' function are recommended for WS models.





Specifications

_		DNW-90WS	DNW-90WSP			
	Mass	Approx. 4.0kg				
	Operating mass	Approx. 6.0kg				
	Power requirements	DC 12V +5				
	Power consumption	32W (RE				
	Operating temperature	0°C to +40°C (+32°F to +104°F)				
3	Storage temperature	-20°C to +60°C	-4°F to +140°F)			
	Humidity	25% to 85% (re				
	Continuous operating time	Approx. 105 min.				
		Approx. 160 min.				
	Genlock video input	BNC (1), 1.0	1 17			
	Time code input	BNC (1), 0.5 to 18Vp-p, 10kΩ				
	Audio CH-1/2 input/Mic input	XLR-3-31 type (2), -60dBu/+4dBu se				
, [Video output	BNC (1), 1.0Vp-p, 75Ω, sync negative				
-	Test output	BNC (1), 1.0Vp-p, 75Ω, sync negative				
-	Time code output	BNC (1), 1.0Vp-p, 75Ω				
2	Earphone	Mini jack				
	Audio output	XLR 5-pin male (stereo)				
	Lens	12-				
L	Remote	6-р				
	Light	2-pin, DC12\				
	DC input	XLR 4-pin male with switch (fo				
-	DC output	4-pin (for wireless microp				
	Recording format	Betaca				
	Tape speed	59.515 mm/s (525 mode)	59.575 mm/s (625 mode)			
	Playback/Recording time	Max. 62 min. with Bo				
	Fast forward time	Approx. 5.5 min.				
	Rewind time	Approx. 5 min. w				
	Recommended tape	Sony Betacam SX				
		Sony BCT-3				
L		Sony UVWT-30MA series				
1	Sampling frequency	Y: 13.5MHz				
L		R-Y/B-Y: 6.75MHz				
<u> </u>	Quantization	8bits/sample				
)	Error correction	Reed-solomon code				
6	Video performance					
	K-factor (2T pulse) Y/R-Y/B-Y delay	1% or				
	Digital audio performance	15ns or less				
	Sampling frequency	48kHz (synchron	ized with video			
	Quantization	· -	· · · · · · · · · · · · · · · · · · ·			
	Frequency response	16bits/sample 20Hz to 20kHz +0.5dB/-1.0dB				
	Dynamic range (emphasis ON)	More that				
	Distortion (at 1kHz, emphasis ON, reference level)	Less that				
	Cross talk (at 1kHz, reference level)					
	Wow & flutter	Less than -70dB Below measurable limit				
	Head room	200				
	Emphasis (ON/OFF selectable)	T1=50µs ,				
1	-principle (Control of Control of	16:9 MODE 4:3 MODE	16:9 MODE 4:3 MODE			
	Pickup device	3-chin 2/3-inch Power HAD 10	00 FIT 16:9 Widescreen CCD			
	Pickup device Picture elements	· · · · · · · · · · · · · · · · · · ·	00 FIT 16:9 Widescreen CCD 1038(H) x 594(V)			
t	Picture elements	1038(H) x 504(V)	1038(H) x 594(V)			
	Picture elements Optical system	1038(H) x 504(V) F1.4 prisr	1038(H) x 594(V)			
	Picture elements Optical system Built-in filters	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND	1038(H) x 594(V)			
	Picture elements Optical system	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)			
	Picture elements Optical system Built-in filters Shutter speed	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps)			
	Picture elements Optical system Built-in filters Shutter speed Clear scan	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S) CLS: 60.1 to 7000Hz (260 steps) ECS: 30.4 to 58.3Hz (248 steps)	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps)			
	Picture elements Optical system Built-in filters Shutter speed	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S) CLS: 60.1 to 7000Hz (260 steps)	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 100 1/25, 1/250, 1/500, 1/1000, 1/2000 (s) 100 1/25, 1/250 1/250, 1/2500 (s) 100 1/25, 1/250 1/2500 (s) 100 1/250 1/250 (s) 100 1/250 1/2			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: V100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S) CLS: 60.1 to 7000Hz (260 steps) ECS: 30.4 to 58.3Hz (248 steps) Special baye	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 100 1/25, 1/250, 1/500, 1/1000, 1/2000 (s) 100 1/25, 1/250 1/250, 1/250 1/2500 (s) 100 1/25, 1/250 1/250 1/2000 (s) 100 1/25, 1/250 1/250 1/2000 (s) 100 1/25, 1/250 1/2500, 1/2000 (s) 100 1/25, 1/250 1/250 1/2500, 1/2000 (s) 100 1/25, 1/250 1/2			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective)	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: V100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (S) CLS: 60.1 to 7000Hz (260 steps) ECS: 30.4 to 58.3Hz (248 steps) Special bay	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 100 1/25, 1/250, 1/500, 1/1000, 1/2000 (s) 100 1/25, 1/250 1/250, 1/250 1/2500 (s) 100 1/25, 1/250 1/250 1/2000 (s) 100 1/25, 1/250 1/250 1/2000 (s) 100 1/25, 1/250 1/2500, 1/2000 (s) 100 1/25, 1/250 1/250 1/2500, 1/2000 (s) 100 1/25, 1/250 1/2			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: 0.0, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 60.1 to 7000Hz (260 steps) ECS: 30.4 to 58.3Hz (248 steps) Special baye Approx. 0.35 lx (F1.4 le	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND 100 1/25, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) Denoted mount 100 1038(H) x 594(V) 101 1038(H) x 594(V) 102 1038(H) x 594(V) 1038			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical)	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) pnet mount as, +42dB Turbo Gain) 61dB			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical)	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 60.1 to 7000Hz (260 steps) ECS: 30.4 to 58.3Hz (248 steps) Special bay: Approx. 0.35 lx (F1.4 le 63dB (without Super EVS) 400 TV lines	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) Denote mount as, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical) Vertical resolution	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) n system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) pnet mount ns, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines s, without lens)			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical) Vertical resolution Registration	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) anet mount ans, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines s, without lens) evel (without lens)			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical) Vertical resolution Registration Geometric distortion	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) anet mount ans, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines s, without lens) evel (without lens)			
	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical) Vertical resolution Registration Geometric distortion Warm-up time	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) anet mount ans, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines s, without lens) evel (without lens) evel (without lens) and 55% (Typical)			
Callela Section	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical) Vertical resolution Registration Geometric distortion Warm-up time Modulation depth at 5MHz	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) anet mount ans, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines s, without lens) evel (without lens) evel (without lens) acc. 70% (Typical) 55% (Typical)			
lidei	Picture elements Optical system Built-in filters Shutter speed Clear scan Lens mount Sensitivity (2000lx, 89.9% reflective) Minimum illumination Video S/N ratio (typical) Vertical resolution Registration Geometric distortion Warm-up time Modulation depth at 5MHz CRT	1038(H) x 504(V) F1.4 prisr 1: CLEAR 2:5600K+1/8ND 1: OLEAR 2:5600K+1/8ND	1038(H) x 594(V) a system 3:5600K 4:5600K+1/64ND //so, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) CLS: 50.2 to 9000Hz (310 steps) ECS: 25.4 to 48.7Hz (295 steps) anet mount ans, +42dB Turbo Gain) 61dB (without Super EVS) 480 TV lines (with Super EVS) 530 TV lines s, without lens) evel (without lens) evel (without lens) acc. 70% (Typical) 55% (Typical)			

DNV-5(NTSC/PAL)

Betacam SX Recorder Unit

•Superb picture and high sound quality of Betacam SX Dockable VTR •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •525/60, 625/50 switchable •4 channels of 16-bit/48kHz digital audio •Same size cassette tape as Betacam SP provides longer recording time of up to 62 minutes on a single S-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Approximately 105 minutes of continuous operation with a BP-L60A lithium-ion battery •Compact and lightweight design less than 3kg •Provides Good Shot Mark and REC. Start Mark functions to speed the editing process •Color playback in the field without an external adaptor •Slot-in mechanism to accommodate an optional WRR-855A Wireless Microphone Receiver •Internal light system •Full color genlock capability •Built-in time code regenerator •Extensive LCD display indicating Time Code, CTL and User-bit data, Tape Remaining, Battery Capacity and audio recording levels •REC/Review function •Stereo audio line out •Low acoustic noise •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: 50-pin connector cap (1)

Shoulder belt (1) BNC cap (5) XLR cap 1 (2) XLR cap 2 (2) Operation manual (1) Maintenance manual (1)

Optional accessories: WRR-855A Slot-in Wireless Microphone Receiver

WRR-860A Wireless Microphone Receiver

(adaptor required)

WRR-810A Wireless Microphone Receiver

(adaptor required)

BP-L90A Rechargeable Lithium-ion Battery

BP-L60A Rechargeable Lithium-ion Battery

AC-DN1 AC Adaptor AC-550/550CE AC Adaptor CA-701 Camera Adaptor VA-DN1 Interface Box

VA-5/5P Component/Composite VTR Adaptor

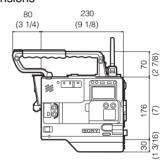
LC-DN5 Carrying Case

BETACAM SX



WRR-855A and battery are options.

Dimensions





Unit: mm (inch)

Specifications

Opo	cifications	DNV-5	
	Mass	Approx. 2.9kg (6 lb 6 oz)	
	Power requirements	DC 12V +5.0V/-1.0V	
	Power consumption	20W	
	Operating temperature	0°C to +40°C (+32°F to +104°F)	
_	Storage temperature	-20°C to +60°C (-4°F to +140°F)	
era	Humidity	25% to 85% (relative humidity)	
General	Continuous operating time	Approx. 105 min. with BP-L60 (BVP-90/90P and DNV-5)	
Ö	Recording format	Betacam SX	
	Tape speed	59.515 mm/s (525 mode), 59.575 mm/s (625 mode)	
	Playback/Recording time	Max. 62 min. with BCT-62SXA cassette	
	Fast forward time	Approx. 5.5 min. with BCT-62SXA	
	Rewind time	Approx. 5 min. with BCT-62SXA	
	Video input (from the camera head)	50-pin, Luminance 1.0Vp-p, 1kΩ	
		Chrominance B-Y/R-Y:0.7Vp-p, 1kΩ	
	Genlock video input	BNC (1), 1.0Vp-p, 75Ω	
	Time code input	BNC (1), 0.5 to 18Vp-p, 10kΩ	
ts	Audio CH-1/2 input/Mic input	XLR-3-31 type (2), -60dBu/+4dBu selectable, high impedance, balanced	
pd	Video output	BNC (1), 1.0Vp-p, 75Ω	
Ħ	Test output	BNC (1), 1.0Vp-p, 75Ω	
nputs/Outputs	Time code output	BNC (1), 1.0Vp-p, 75Ω	
ğ	Earphone	Mini jack	
프	Audio output	XLR 5-pin male (stereo)	
	Remote	6-pin	
	Light	2-pin, DC12V, Max. 30W	
	DC input	XLR 4-pin male with switch (for the optional AC-550/550CE AC Adaptor)	
	DC output	4-pin (for wireless microphone receiver), DC 12V	
99	Sampling frequency	Y: 13.5MHz	
man		R-Y/B-Y: 6.75MHz	
Performance	Quantization	8bits/sample	
9 P	K-factor (2T pulse)	1% or less	
Video	Y/C delay	15ns or less	
ą.	Sampling frequency	48kHz	
anc	Quantization	16bits/sample	
Ē	Frequency response	20Hz to 20kHz +0.5dB/1.0dB	
erfo	Dynamic range	More than 85dB	
0 P	Distortion T.H.D.	Less than 0.08%	
igi	Crosstalk	Less than -70dB	
Digital Audio Performance	Wow & fluter	Below measurable level	
	Head room	20dB	
۵	Emphasis (ON/OFF selectable)	T1=50µs, T2=15µs	

The specifications given above were measured by CA-701.

DNW-A75(NTSC)/A75P(PAL)

Digital Video Cassette Recorder with Analog DT Playback

•Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •±0 frame insert/asssemble editing •Pre-read editing cabability •Variable speed control •Dynamic motion control •Good shot mark handling •Four channels of 16-bit/48kHz digital audio •Uses same 1/2-inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format •Same size cassette tape as Betacam SP provides longer recording times: up to 62 minutes on a single S-cassette tape, 194 minutes on a L-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •SDTI (Serial Data Transport Interface) (SX) output (option) for high-speed transfer of video/audio materials at up to 2x real-time •Compact design to keep the same dimensions as Betacam SP VTRs •525/60, 625/50 switchable in a digital component environment •Speed search with VTR: ±78 times normal play speed •SDI input/output •Analog composite and analog component input •Three analog composite outputs and one analog component output •Analog 4ch audio input/output and AES/EBU digital audio input/output •RS-422A 9-pin remote control interface •RS-232C remote control interface •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: RCC-5G 9-pin remote control cable (1)

PSW 4 x 16 screws for rack mounting (4)

Maintenance manual part 1 (1)
Operation manual (1)

Optional accessories:

BKNW-118 SDTI (SX) Output Board

BKNW-119 Control Panel BKNW-121 Control Panel Case BKNW-122 Control Panel Extension Kit

RMM-111 Rack Mount Kit Maintenance Manual (Part-2)







Opo	Circations		51111/4==5	
	Danier and a side and a state	DNW-A75	DNW-A75P	
	Power requirements	AC 100 V to 2	*	
	Power consumption	215 VA	,	
	Operating temperature	+5 °C to +40 °C (-		
	Storage temperature	-20 °C to +60 °C		
	Humidity	25 % to 80 % (r	÷ ÷	
	Mass	28.5 kg (62 lb 12 oz)		
<u>ra</u>	Dimensions (W × H × D)	427 × 237 × 524 mm (16 7/8 × 9 3/8 × 20 3/4 inches)		
General	Tape speed Betacam SX	59.515 mm/s (525 mode)	59.575 mm/s (625 mode)	
	Betacam/Betacam SP	118.6 mm/s	101.5 mm/s	
	Digital playback/recording time	Max. 194 min with BCT-194SXLA cassette		
	Fast forward/rewind time	Approx. 3 min with BCT-194SXLA cassette		
	Search speed range	±78 times normal playback speed (Betacam SX) ±35 times normal playback speed (Betacam/Betacam SP) ±42 times normal playback speed (Betacam/Betacam SP)		
		1 7 1 1	, , , , , , , , , , , , , , , , , , , ,	
	Servo lock time	0.5 s or less (from standby on) 6s or less		
	Load/unload time			
	Analog composite input	BNC (2), 1.0 Vp-p, 75 Ω, sync negative		
	Analog composite output	BNC (3) (including one character of	, , , , , , ,	
	Analog component input		5 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω	
	Analog component output		5 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω	
	SDI input	BNC (2) (including one active through out), SMPTE 259M, 270 Mbit/s	BNC (2) (including one active through out), ITU-R BT.656-3, 270 Mbit/s	
	SDI output	BNC (3) (including one character out), SMPTE 259M, 270 Mbit/s	BNC (3) (including one character out), ITU-R BT.656-3, 270 Mbit/s	
_	SDTI input (option)	BNC (1), SI		
signal	SDTI output (option)	BNC (2), Maximum ×2		
sig	Analog audio input (CH1, 2, 3, 4)	XLF	. ,	
Ħ	Analog audio output (CH1, 2, 3, 4)	XLF		
input/output	Digital audio input (CH1/2, 3/4)	BNC (2),		
ره	Digital audio output (CH1/2, 3/4)	BNC (2), AES/EBU		
ğ	Remote control Remote	D-sub 9-pin (2), Sony 9-pin remote interface		
ij	RS-232C	D-sub 9-pin (1), RS-232C interface		
	Processor Control	D-sub 15-pin (1)		
	Connector for Control Panel	Mini D-sub 29-pin (1)		
	Parallel Remote	50-pin (1) BNC (1), 0.3 Vp-p, 75 Ω, sync negative (with loop through out)		
	Reference input Time code input	XLR (1)		
	Time code input Time code output	XLR (1)		
	Monitor Output L/R	XLR (2)		
	Video level	±3 dB/ -∞ to 3 dB selectable		
e e	Chroma level	±3 dB/ -∞ to 3 dB selectable		
ıt raı	Set up/Black level	±30 IRE/±210 mV		
tmer	Chroma phase/hue	±30 °		
djus	System sync phase	±15 µs		
Processor adjustment range	System SC phase	±200 ns		
Seco	Y/C delay	±100 ns (Betacam/Betacam SP playback only)		
چَ	Composite input level	±3 dB		
	Sampling frequency	Y: 13.5 MHz		
	Quantization	8 bits/sample		
8	Error correction	Reed-solomon code		
mar	Digital input to analog component output	K-factor (2T pulse): 1 % or less		
후	Analog component input (option) to analog component output	Input A/D quantization: 8 bits/sample		
Digital video performance		K-factor (2T pulse): 1 % or less		
/ide		LF non-linearity: 2.5 % or less		
ita	Analog composite input (option) to analog composite output	Differential gain: 2 % or less		
Dig		Differential phase: 2 °or less		
		Y/C delay: 15 ns or less		
		K-factor (2T pulse): 1 % or less		
ies	Remote Cable (RCC-5G)	(1)		
Supplied accessories	PSW 4 x16 Rack Mount Screw	(4)		
	Operation manual	(1)		
	Maintenance manual (part 1)	(1)		



Digital Video Cassette Recorder

•Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •±0 frame insert/assemble editing •Pre-read editing capability •Variable speed control •Dvnamic motion control •Good shot mark handling •Four channels of 16-bit/48 kHz digital •Provides long recording times: up to 62 minutes on a single S-cassette, 194 minutes on a L-cassette •SDTI (SX) output (option) for high-speed transfer of video/audio materials at up to 2x real-time •Compact design to keep the same dimensions as Betacam SP VTRs •525/60, 625/50 switchable in a digital component environment •Speed search with VTR: ±78 times normal play speed •SDI input/output •Analog composite and analog component input •Three analog composite outputs and one analog component output •Analog 4-ch audio input/output and AES/EBU digital audio input/output •RS-422A 9-pin remote control interface •RS-232C remote control interface •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: PSW 4 x 16 screws for rack mounting (4)

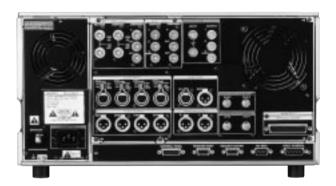
Operation manual (1)

Optional accessories: BKNW-118 SDTI (SX) Output Board

BKNW-119 Control Panel
BKNW-121 Control Panel Case
BKNW-122 Control Panel Extension Kit

RMM-111 Rack Mount Kit Maintenance Manual





Opc	pecifications				
		DNW-75	DNW-75P		
	Power requirements	AC 100 V to 240 V, 50/60 Hz			
	Power consumption	184 VA (175 W)/AC 240			
	Operating temperature	+5°C to +40°C (+41°F to +104°F)			
	Storage temperature	-20°C to +60°C (-4°F to +140°F)			
	Humidity	25% to 80% (relative humidity)			
<u>=</u>	Mass	26.7 kg (58 lb 13 oz)			
ē	Dimensions (W × H × D)	427 × 237 × 524 mm (16 7/8 × 9 3/8 × 20 3/4 inches)			
General	Tape speed	59.515 mm/s (525 mode) 59.575 mm/s (625 mode)			
	Digital playback time	Max. 194 min with BCT-194SXLA cassette			
	Fast forward/rewind time	Approx. 3 min with BCT-194SXLA cassette			
	Search speed range	±78 times normal playback speed (Betacam SX)			
	Servo lock time	0.5 s or less (from standby on)			
	Load/unload time	6 s or less			
	Analog composite input	BNC (2), 1.0 Vp-p, 75 Ω, sync negative			
	Analog composite output	BNC (2), 1.0 Vp-p, 75 \Omega, sync negative BNC (3, including one character out), 1.0 Vp-p, 75\Omega, sync negative			
			75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω		
	Analog component input				
	Analog component output		75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω		
	SDI input	BNC (2) (including one active through out), SMPTE 259M, 270 Mbit/s	BNC (2) (including one active through out), ITU-R BT.656-3, 270 Mbit/s		
	SDI output	BNC (3) (including one character out), SMPTE 259M, 270 Mbit/s	BNC (3) (including one character out), ITU-R BT.656-3, 270 Mbit/s		
	SDTI (SX) output (option)	BNC (2), Maximum ×2	•		
<u>ब</u>	Analog audio input (CH 1,2,3,4)	XLF			
<u>.</u> 5	Analog audio output (CH 1,2,3,4)	XLF	* *		
S	Digital audio input (CH 1/2, 3/4)	BNC (2),			
ğ	Digital audio output (CH 1/2, 3/4)	BNC (2),			
Outputs signal	Remote control Remote		9-pin remote interface		
ō	RS-232C	D-sub 9-pin (1), R			
	Processor Control	D-sub 1			
	Connector for Control Panel	Mini D-sub 29-pin (1)			
	Parallel Remote	50-pin (1)			
	Reference input	BNC (1), 0.3 Vp-p, 75 Ω , sync negative (with loop through out)			
	Time code input	XLR (1)			
	Time code output	XLR (1)			
	Monitor output L/R	XLR (2)			
96	Video level	±3 dB/ -∞ to 3 dB selectable			
Processor adjustment range	Chroma level	±3 dB/ -∞ to 3 dB selectable			
men	Set up/Black level	±30 IRE/±210 mV			
dinst	Chroma phase/hue	±30°			
ē	System sync phase	±15 μs			
Sess	System SC phase	±200 ns			
옵	Composite input level	±3 dB			
	Sampling frequency	Y: 13.5 MHz R-Y/B-Y: 6.75 MHz			
	Quantization	8 bits/sample			
22	Error correction	Reed-Solomon code			
ä	Digital input to analog component output	K-factor (2T pulse): 1 % or less			
후	Analog component input to analog component output	Input A/D quantization: 8 bits/sample			
윤		K-factor (2T pul	se): 1 % or less		
Digital video performa		LF non-linearity	y: 2.5 % or less		
ᅙ	Analog composite input to analog composite output	Differential ga	in: 2 % or less		
į		Differential ph	ase: 2° or less		
		Y/C delay: 1	5 ns or less		
		K-factor (2T pulse): 1 % or less			
	Sampling frequency	48 kHz (synchronized with video)			
၁၁	Quantization	16 bits/sample			
mai	Frequency response (0 dB at 1 kHz)	20 Hz to 20 kHz +0.5 dB/-1.0 dB			
후	Dynamic range (at 1 kHz, emphasis ON)	More than 90 dB			
be	Distortion (at 1 kHz, emphasis ON, reference level)	Less than 0.05%			
oibi	Cross talk (at 1 kHz, between any two channels)	Less than -80 dB			
Digital audio performance	Wow & flutter	Below measurable level			
	Head room	20 dB (18 dB selectable)			
	Emphasis (ON/OFF selectable in REC mode)	T1=50 µs, T2=15 µs			
-p .83	PSW 4 × 16 Rack Mount Screw		•		
Supplied accessories	Operation manual	(4) (1)			
S 5	Operation manual		1)		

DNW-A65(NTSC)/A65P(PAL)

Digital/Analog Video Cassette Player

•High quality digital video of the Betacam SX format using MPEG-2 4:2:2P@ML compression technology, and 16-bit uncompressed audio channels •Variable Speed Control from -1 to +2 times with noiseless image and digital jog sound (Betacam SX playback only) •DMC (Dynamic Motion Control) •Good Shot Mark, Record Start Mark and Virtual Shot Marks •525/60 or 625/50 versatility

•Betacam/Betacam SP playback capability •Equipped with analog composite and component video outputs, component SDI output and 4 channels of analog audio outputs, AES/EBU output and 2 audio monitor outputs as standard. In addition, RS-422A control, RS-232C control, parallel 50-pin remote control interface, video processor control interface (Parallel 15-pin), and Time Code output are also included. SDTI (SX) output is optional interface •Playable in Flexicart and LMS Systems •Shuttle Search Speed Betacam SX mode: ±78 times normal playback speed. Betacam/SP mode: ±35 (NTSC)/±42 (PAL) times normal playback speed •Provides Long Playback Time. 194 minutes using an L cassette and 62 minutes using an S cassette •Flexible usage of the Control Panel.

Supplied accessories: RCC-5G 9-pin remote control cable (1)

PSW 4 x 16 screws for rack mounting (4)

Maintenance manual (1) Operation manual (1)

Optional accessories BKNW-118 SDTI (SX) Output Board

BKNW-119 Control Panel BKNW-121 Control Panel Case BKNW-122 Control Panel Extension Kit

RMM-111 Rack Mount Kit Maintenance Manual (Part-2)





Opu	cincations	DNW-A65	DNW-A65P
	Power requirements		40 V, 50/60 Hz
	Power consumption	195 VA (190 W)/AC 240 V	
	Operating temperature	+5°C to +40°C (+41°F to +104°F)	
	Storage temperature	-20°C to +60°C (-4°F to +140°F)	
	Humidity	25% to 80% (relative humidity)	
	Mass	28 kg (61 lb 11 oz)	
	Dimensions (W × H × D)	427 × 237 × 524 mm (16 7/8 × 9 3/8 × 20 3/4 inches)	
General	Tape speed Betacam SX	59.515 mm/s (525 mode) 59.575 mm/s (625 mode)	
	Betacam/Betacam SP	118.6 mm/s	101.5 mm/s
	Digital playback time		CT-194SXLA cassette
	Fast forward/rewind time	Approx. 3 min with BCT-194SXLA cassette	
	Search speed range	±78 times normal playback speed (Betacam SX)	
	Search speed range	±35 times normal playback speed (Betacam/Betacam SP) ±42 times normal playback speed (Betacam/Betacam SP)	
	Servo lock time		. , , ,
	Load/unload time	0.5s or less (from standby on) 6 s or less	
	Analog composite output	BNC (3) (including one character out), 1.0 Vp-p, 75Ω, sync negative BNC (3) (for 1 set, Y/R-Y/B-Y),Y: 1.0 Vp-p, 75Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75Ω	
	Analog component output		
	SDI output	BNC (3) (including one character out), SMPTE 259M, 270 Mbit/s	BNC (3) (including one character out), ITU-R BT.656-3, 270 Mbit/s
_	SDTI (SX) output (option)	BNC (2), Maximum x2	
ű	Analog audio output (CH 1,2,3,4)	XLF	• •
siç	Digital audio output (CH 1/2, 3/4)	BNC (2), AES/EBU	
ıts	Remote control Remote	D-sub 9-pin (2), Sony 9-pin remote interface	
fp	RS-232C	D-sub 9-pin (1), RS-232C interface"	
Outputs signal	Processor Control	D-sub 15-pin (1)	
	Connector for Control Panel	Mini D-sub 29-pin (1)	
	Parallel Remote	50-pin (1)	
	Time code output	XLR (1)	
	Monitor output L/R	XLR (2)	
Processor adjustment range	Video level	±3 dB/ -∞ to 3 dB selectable	
int ra	Chroma level	±3 dB/ -∞ to 3 dB selectable	
stme	Set up/Black level	±30 IRE/±210 mV	
adja	Chroma phase/hue	±30°	
Sor	System sync phase	±15 µs	
seoc	System SC phase	±200 ns	
	Y/C delay	±100 ns (Betacam/Betacam SP playback only)	
ideo	Sampling frequency	Y: 13.5 MHz R-Y/B-Y: 6.75 MHz	
Digital video performance	Quantization	8 bits/sample	
E Di	Error correction	Reed-Solomon code	
ø.	Sampling frequency	48 kHz (synchronized with video)	
performance	Quantization	16 bits/sample	
Ë	Frequency response (0 dB at 1 kHz)		+0.5 dB/-1.0 dB
erfo	Dynamic range (at 1 kHz, emphasis ON)	More than 90 dB	
0	Distortion (at 1 kHz, emphasis ON, reference level)	Less than 0.05%	
andi	Cross talk (at 1 kHz, between any two channels)	Less than -80 dB	
tal	Wow & flutter	Below measurable level	
Digital audi	Head room	20 dB (18 dB selectable)	
	Emphasis (ON/OFF selectable in REC mode)	T1=50 μs, T2=15 μs	
- S	Remote Cable (RCC-5G)	(*	1)
Sori	PSW 4 x 16 Rack Mount Screw	(4)	
Supplied accessories	Operation manual	(1)	
	Maintenance manual (part 1)	(1)	
		•	



Digital Video Cassette Player

•High quality digital video of the Betacam SX format using MPEG-2 4:2:2P@ML compression technology, and 16-bit uncompressed audio channels •Variable Speed Control from -1 to +2 times with noiseless image and digital jog sound •DMC (Dynamic Motion Control) •Good Shot Mark, Record Start Mark and Virtual Shot Marks •525/60 or 625/50 versatility •Equipped with analog composite and component video outputs, component SDI output and 4 channels of analog audio outputs, AES/EBU output and 2 audio monitor outputs as standard. In addition, RS-422A control, RS-232C control, parallel 50-pin remote control interface, video processor control interface (Parallel 15-pin), and Time Code output are also included. SDTI (SX) output is optional interface •Playable in Flexicart and LMS Systems •Shuttle Search Speed: ±78 times normal playback speed •Provides Long Playback Time. 194 minutes using an L cassette and 62 minutes using an S cassette •Flexible usage of the Control Panel.

Supplied accessories: PSW 4 x 16 screws for rack mounting (4)

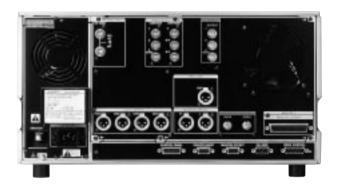
Operation manual (1)

Optional accessories BKNW-118 SDTI (SX) Output Board BKNW-119 Control Panel

BKNW-121 Control Panel Case BKNW-122 Control Panel Extension Kit

RMM-111 Rack Mount Kit Maintenance Manual





		DNW-65P DNW-65P	
	Power requirements	AC 100 V to 240 V, 50/60 Hz	
General	Power consumption	165VA (156 W)/AC 240 V	
	Operating temperature	+5°C to +40°C (+41°F to +104°F)	
	Storage temperature	-20°C to +60°C (-4°F to +140°F)	
	Humidity	25% to 80% (relative humidity)	
	Mass	26 kg (57 lb 3 oz)	
	Dimensions (W × H × D)	427 × 237 × 524 mm (16 7/8 × 9 3/8 × 20 3/4 inches)	
	Tape speed	59.515 mm/s (525 mode) 59.575 mm/s (625 mode)	
_	Digital playback time	Max. 194 min with BCT-194SXLA cassette	
	Fast forward/rewind time	Approx. 3 min with BCT-194SXLA cassette	
	Search speed range	±78 times normal playback speed	
	Servo lock time	0.5s or less (from standby on)	
	Load/unload time	6 s or less	
	Analog composite output	BNC (3) (including one character out), 1.0 Vp-p, 75Ω, sync negative	
	Analog component output	BNC (3) (for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75Ω	
	SDI output	BNC (3) (including one character out), SMPTE 259M, 270 Mbit/s BNC (3) (including one character out), ITU-R BT.656-3, 270 Mbit/s	
	SDTI (SX) output (option)	BNC (2), Maximum x2 speed, SMPTE 305M	
<u>a</u>	Analog audio output (CH 1,2,3,4)	XLR (4)	
Outputs signal	Digital audio output (CH 1/2, 3/4)	BNC (2), AES/EBU	
SS	Remote control Remote	D-sub 9-pin (2), Sony 9-pin remote interface	
ij	RS-232C	D-sub 9-pin (1), RS-232C interface"	
ฐ	Processor Control	D-sub 15-pin (1)	
ō	Connector for Control Panel	Mini D-sub 29-pin (1)	
	Parallel Remote	50-pin (1)	
	Time code output	XLR (1)	
	Monitor output L/R	XLR (2)	
_	Video level	±3 dB/ -∞ to 3 dB selectable	
nge	Chroma level	±3 dB/ -∞ to 3 dB selectable	
t a	Set up/Black level	±30 IRE/±210 mV	
justment range	Chroma phase/hue	±30°	
nst 2	System sync phase	±15 μs	
adj	System SC phase	±200 ns	
	Sampling frequency	Y: 13.5 MHz R-Y/B-Y: 6.75 MHz	
manc	Quantization	8 bits/sample	
performance	Error correction Reed-Solomon code		
<u> </u>	Sampling frequency	48 kHz (synchronized with video)	
9	Quantization	48 kHz (synchronized with video) 16 bits/sample	
performance	Frequency response (0 dB at 1 kHz)	20 Hz to 20 kHz +0.5 dB/-1.0 dB	
٥	Dynamic range (at 1 kHz, emphasis ON)	More than 90 dB	
per	Distortion (at 1 kHz, emphasis ON, reference level)	Less than 0.05%	
9	Cross talk (at 1 kHz, between any two channels)	Less than -80 dB	
aŭ	Wow & flutter	Below measurable level	
Digital audio	Head room	20 dB (18 dB selectable)	
Ĕ,	Emphasis (ON/OFF selectable in REC mode)	T1=50 µs, T2=15 µs	
- C			
essorie	PSW 4 x 16 Rack Mount Screw	(4)	
8	Operation manual	(1)	



DNW-A28(NTSC)/A28P(PAL)

Digital Video Cassette Recorder

•High quality digital video of the Betacam SX format using MPEG-2 4:2:2P@ML compression technology, and 16-bit uncompressed audio channels •Compact design for use in a limited space such as an OB van •Sliding key panel •Small jog dial •Manual Editing Function •Good Shot Mark, Record Start Mark and Virtual Shot Marks •525/60 or 625/50 versatility •Betacam/Betacam SP playback capability •Equipped with analog composite video input/output, component SDI input/output and 4-channel of digital audio or 2-channel of analog audio outputs as standard •RS-422A 9-pin remote control interface •Shuttle Search Speed Betacam SX mode: ±24 times normal playback speed. Betacam SP mode: ±10 times normal playback speed •Provides long recording and playback time of 62 minutes using an S cassette

Supplied accessories: Operation manual (1)

Maintenance manual (part 1) (1)
Optional accessories: BKP-L551 Lithium-ion Battery Adapter

AC-DN2A AC Adaptor AC-550 AC Adaptor

BP-L60A Rechargeable Lithium-ion Battery

BKNW-25 DV Interface Box BVR-3 Remote Controller





,60	Cilications	DNW-A28	DNW-A28P	
	Power requirements	DC 12 V +5.0 V/-1.0 V		
	Power consumption	58	W	
	Operating temperature	+0 °C to +40 °C (-	+32 °F to +104 °F)	
	Storage temperature	-20 °C to +60 °C	(-4 °F to +140 °F)	
	Humidity		o 80 %	
General	Mass	5.8 kg (12 lb 12 oz)		
	Dimensions (W/H/D)	210 × 132 × 425 mm (8 3/8 × 5 1/4 × 18 inches)		
5	Tape speed Betacam SX	59.515 mm/s (525 mode) 59.575 mm/s (625 mode)		
	Betacam/Betacam SP	118.6 mm/s	101.5 mm/s	
	Digital playback/recording	Max. 62 minutes with BCT-62SXA cassette		
	Rewind time	Approx. 3 min with E	BCT-62SXA cassette	
	Search speed range	Betacam SX: ±24 times	normal playback speed	
	· -	Betacam/Betacam SP: ±10 times normal playback speed		
	Servo lock time	0.5 ns or less (from standby on)		
	Load/unload time	6 s or less		
	Analog composite input	BNC (1) 1 0 Vn-n 75	5 ohms, sync negative	
	Analog composite output		t), 1.0 Vp-p, 75 ohms, sync negative	
	SDI input	BNC (1), SMPTE 259M, 270 Mbit/s	BNC (1), ITU-R BT.656-3, 270 Mbit/s	
3	SDI output	BNC (2), SMPTE 259M, 270 Mbit/s	BNC (1), ITU-R BT.656-3, 270 Mbit/s	
31911413	Analog audio input (CH1,2)		R (2)	
5	Analog audio output (CH1,2)		R (2)	
3	Analog monitor output (L,R)	XLF		
5	Headphones output		ck (1), stereo	
ì	Remote control		9-pin remote interface	
į	Reference input			
inputs/output	Test	BNC (1), 0.3 Vp-p, 75 ohms, sync negative (with loop through out) Aux 6-pin (1) for maintenance)		
	Time code input	BNC (1)		
	Time code output	BNC (1)		
	Video level	±3 dB/-∞ to 3 dB selectable		
υge	Chroma level	±3 dB/-∞ to 3 dB selectable		
ī	Set up/Black level	±30 IRE/ ±210 mV		
Jen	Y/C delay	±100 ns (in Betacam/l		
ıstu	Chroma phase	±30°		
adjustment range	System phase	Sync: ±15 µs (SC step), SC: ±200 ns		
	· ·			
signal system	Sampling frequency Quantization	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz 8 bits/sample		
mals			•	
ŝį	Compression	MPEG-2 4:2:2 Profile@Main Level		
×	Bandwidth (Y)	0 to 4.5 MHz +0.5 dB/-3.0 dB (525 mode), 0 to 5.5 MHz +0.5 dB/-3.0 dB (625 mode)		
bac	S/N	53 dB or more		
ecording playback	Differential gain	2 % or less		
ng	Differential phase	2° or less		
prdi	Y/C delay	15 ns or less		
reco	K factor (2T pulse)	1.5 % or less		
	Output SCH phase	Based upon RS-170A/ITU-R BT.624-3		
signal system	Sampling frequency		nized with video)	
signal system	Quantization		/sample	
Jual	Headroom	· · · · · · · · · · · · · · · · · · ·	dB selectable)	
sig	Emphasis		selectable in recording mode)	
5	A/D, D/A quantization		/sample	
Allanog output	Frequency response	20 Hz to 20 kHz +0.5 dB/-1.0 dB (0 dB at 1 kHz)		
20	Dynamic range		nphasis on, 30 kHz LPF ON)	
2	Distortion	0.05 % or less (at 1 kHz,emphasis on, re	eference level (+4 dBm), 30 kHz LPF ON)	
č	Crosstalk	-80 dB or less (at 1 kHz, between any two channels, 1kHz BPF ON)		
2	Channel coding	S-I-NRZI PR-IV		
Omers	Error correction	Reed Solo	omon code	
	Display	Counter, Servo Lock. Tabe F	Remain, Battery Remain, etc.	
	Audio level meter	<u> </u>	4 is also available by switch)	
Se	Operation manual			
Sessor	Maintenance manual (part1)		1) 1)	
. 8	mantenance manual (parti)		'/	

DNW-A25 (NTSC)/A25P (PAL)

Digital Portable Editing Recorder

•Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •±0 frame insert/assemble editing •Combines VTR, LCD screen and built-in speaker into a single unit •Four channels of 16bit/48kHz digital audio •Current Betacam SP S-size metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Uses same 1/2- inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format •Compact design for field use (211 × 149 × 443 mm) and lightweight (6.5 kg) •Battery Operation(attaching a Sony BP-L90/L90A/L60/L60A) and also AC powered operation •Good Shot/REC Start Mark and Shot Data handling •525/60, 625/50 switchable in the digital component environment •Speed search with VTRs: ±24 times normal play speed (Betacam SX) •SDI input/output •Analog composite input •Two analog composite outputs •Analog 2ch audio input/output and 2ch monitor output •Sony 9-pin remote control interface •Dockable with another DNW-A25/A25P or DSR-70/70P

Supplied accessories: Shoulder helt (1)

Maintenance Manual (Part 1) (1)

Operation Manual (1)

Optional accessories: BP-L60A/L90A, Rechargeable lithium-ion battery

DC-L90, Battery Case (for an optional BP-90A

NiCd Battery)

AC-550/550CE, AC Adaptor BVR-3, Remote Controller LC-DN220, Carrying Case (Hard) LC-DN220SFT, Carrying Case (Soft)

AC-DN2A, AC Adaptor

BKNW-225, docking kit for two DNW-A25/A25Ps

BKNW-25, DV interface box

Specifications

General

DC 12 V Power requirements: Power consumption:

0 °C to +40 °C (+32 °F to +104 °F) Operating temperature: Storage temperature: -20 °C to +60 °C (-4 °F to +140 °F) Humidity: 25 % to 80 % (relative humidity)

6.5 kg (14 lb 5 oz) Mass:

211(W) × 149(H) × 443(D) mm (8 3/8 × 5 7/8 × 17 1/2 inches) Dimensions:

Betacam SX: 59.515 mm/s (525 mode). Tape speed:

59.575 mm/s (625 mode)

Betacam/Betacam SP 118.6mm/s(NTSC).

101.5 mm/s(PAL)

Digital playback/recording time:

Max. 62 min with BCT-62SXA cassette

Fast forward/rewind time: Less than 3 min with BCT-62SXA cassette Search speed range: ±24 times normal playback speed (SX)

±10 times normal playback speed (Betacam, SP)

Servo lock time: 0.5s or less (from standby on)

Load/unload time: 6s or less

Input/output signal VTR 1/VTR 2

Analog composite input: BNC(1), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC(2) (including one character out), 1.0 Vp-p,

SDI input: BNC(1), SMPTE 259M (ITU-R BT.656-3),

270Mbit/s

SDI output: BNC (2), SMPTE 259M (ITU-R BT.656-3),

270Mbit/s

Analog audio input (CH1,2): XLR (2) Analog audio output (CH1/3, 2/4): XLR (2) Analog monitor output (L, R): XLR (2)

Headphones output: Standard jack (1), stereo

Remote control: D-sub 9-pin (1), Sony 9-pin remote interface





BNC (1), 0.3 Vp-p, 75 $\Omega,$ sync negative (with loop Reference input:

through out)

Test: Aux 6-pin (1) (for maintenance)

Time code input: BNC (1) Time code output:

LCD

LCD display: 6.4-inch VGA (640 × 480) Speaker: Built-in speaker, monaural

Display: Counter, Servo Lock, Tape Remain, Battery Remain, etc. Audio level meter Ch1, Ch2

(indication of Ch3.4 is also available by switch)

DNW-A225 (NTSC)/A225P (PAL)

Digital Portable Editor

•Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •±0 frame insert/assemble editing •Combines two VTRs, two LCD screens, and built-in speakers •Four channels of 16bit/48kHz digital audio •Current Betacam SP S-size metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Uses same 1/2- inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format (both left and right side deck) •Compact design for field use (422 × 149 × 443 mm) and lightweight (13 kg) •Battery Operation(attaching a Sony BP-L90/L90A/L60/L60A) and also AC powered operation •Detachable Operation •Good Shot/REC Start Mark handling and Shot Data handling •525/60, 625/50 switchable in the digital component environment •Speed search with VTRs: ±24 times normal play speed (Betacam SX) •SDI input/output •Analog composite input •Two analog composite outputs •Analog 2ch audio input/output and 2ch monitor output for each deck •Sony 9-pin remote control interface

Optional accessories: BP-L60A/L90A, Rechargeable lithium-ion battery

DC-L90, Battery Case (for an optional BP-90A

NiCd Battery)

AC-550/550CE, AC Adaptor BVR-3, Remote Controller LC-DN220, Carrying Case (Hard) LC-DN220SFT, Carrying Case (Soft)

AC-DN2A, AC Adaptor

BKNW-225, docking kit for two DNW-A25/A25Ps

BKNW-25, DV interface box

Specifications General

Power requirements: DC 12 V Power consumption: $130 \text{ W} (65 \text{ W} \times 2)$

Operating temperature: $0 \,^{\circ}\text{C}$ to +40 $^{\circ}\text{C}$ (+32 $^{\circ}\text{F}$ to +104 $^{\circ}\text{F}$) Storage temperature: $-20 \,^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$) Humidity: $25 \,^{\circ}\text{M}$ to 80 $^{\circ}\text{M}$ (relative humidity) Mass: $13 \,^{\circ}\text{M}$ (6.5 kg × 2, 28 lb 10 oz)

Dimensions: $422(W) (211 \times 2) \times 149(H) \times 443(D) \text{ mm}$

(16 % [5 7/8 x 17 1/2 inches)

Tape speed: Betacam SX: 59.515 mm/s (525 mode),

59.575 mm/s (625 mode)

Betacam/Betacam SP 118.6mm/s(NTSC),

101.5 mm/s(PAL)

Digital playback/recording time:

Max. 62 min with BCT-62SXA cassette
Fast forward/rewind time: Less than 3 min with BCT-62SXA cassette
Search speed range: ±24 times normal playback speed (SX)

±24 times normal playback speed (SX) ±10 times normal playback speed (Betacam, SP)

Servo lock time: 0.5s or less (from standby on)

Load/unload time: 6s or less

Input/output signal VTR 1/VTR 2

Analog composite input: BNC(1), 1.0 Vp-p, 75 Ω , sync negative

Analog composite output:

BNC(2) (including one character out), 1.0 Vp-p,

75 Ω , sync negative

SDI input: BNC(1), SMPTE 259M (ITU-R BT.656-3),

270Mbit/s

SDI output: BNC (2), SMPTE 259M (ITU-R BT.656-3),

270Mbit/s Analog audio input (CH1,2): XLR (2) Analog audio output (CH1/3, 2/4): XLR (2) Analog monitor output (L, R): XLR (2)

Headphones output: Standard jack (1), stereo

Remote control: D-sub 9-pin (1), Sony 9-pin remote interface





Reference input: BNC (1), 0.3 Vp-p, 75 Ω , sync negative (with loop

through out)
Test: Aux 6-pin (1) (for maintenance)

Time code input: BNC (1)

Time code output: BNC (1)

LCD

LCD display: 6.4-inch VGA (640×480) ×2 Speaker: Built-in speakers (2), monaural

Display (x2): Counter, Servo Lock, Tape Remain, Battery Remain, etc. Audio level meter Ch1, Ch2 (indication of Ch3,4 is also available by switch)

DNW-A220 (NTSC)/A220P (PAL)

Digital Portable Editor

•Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •Combines two VTRs, two LCD screens, and built-in speakers •Four channels of 16-bit/48kHz digital audio •Current Betacam SP S-size metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Uses same 1/2inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format (the left side deck) •Compact design for field use (422 × 149 × 443 mm) and lightweight (13 kg) •Battery Operation(attaching a Sony BP-L90/L90A/L60/L60A) and also AC powered operation •Detachable Operation •Good Shot Mark and Shot Data handling •525/60, 625/50 switchable in the digital component environment •Speed search with VTRs: ±24 times normal play speed (Betacam SX) •SDI input/output •Analog composite input •Two analog composite outputs •Analog 2ch audio input/output and 2ch monitor output for each deck •Sony 9-pin remote control interface

Supplied accessories: 9-pin remote control cable (1)

BNC Cable (1)

Carrying belt (1)
Maintenance Manual (Part 1)
Operation Manual (1)

Coin screws (12)
Optional accessories: BP-L60A/L90A Rechargeable lithium-ion battery

DC-L90 Battery Case

(for an optional BP-90A NiCd Battery) AC-550/CE AC Adaptor BVR-3 Remote Controller LC-DN220 Carrying Case (Hard) LC-DN220SFT Carrying Case (Soft)

AC-DN2A AC Adaptor BKNW-25 DV interface box

Specifications

General

Power requirements: DC 12V Power consumption: $120W (60W \times 2)$

Operating temperature: 0°C to $+40^{\circ}\text{C}$ ($+32^{\circ}\text{F}$ to $+104^{\circ}\text{F}$)
Storage temperature: -20°C to $+60^{\circ}\text{C}$ (-4°F to $+140^{\circ}\text{F}$)
Humidity: 25% to 80% (relative humidity)
Mass: 13kg ($6.5\text{kg} \times 2, 28$ lb 10 oz)

Dimensions: $422(W) (211 \times 2) \times 149(H) \times 443(D) mm$

 $(16 \% \times 5 \% \times 17 \% \text{ inches})$

Tape speed: Betacam SX: 59.515 mm/s (525 mode),

59.575 mm/s (625 mode) Betacam/Betacam SP

118.6mm/s(NTSC), 101.5mm/s(PAL)

Digital playback/recording time:

Max. 62 min with BCT-62SXA cassette Fast forward/rewind time: Less than 3 min with BCT-62SXA cassette

Search speed range: ±24 times normal playback speed (SX) ±10 times normal playback speed

(Betacam/Betacam SP)

Servo lock time: 0.5s or less (from standby on) Load/unload time: 6s or less

Input/output signal VTR 1/VTR 2

Analog composite input: $\,$ BNC(1), 1.0Vp-p, 75 $\!\Omega,$ sync negative

Analog composite output:BNC(2, including one character out), 1.0Vp-p, 75Ω,

sync negative

SDI input: BNC(1), SMPTE 259M (ITU-R BT.656-3),

270Mbit/s

SDI output: BNC (2), SMPTE 259M (ITU-R BT.656-3),

270Mbit/s

Analog audio input (CH1,2): XLR (2)
Analog audio output (CH1/3, 2/4): XLR (2)
Analog monitor output (L, R): XLR (2)
Hoodphops output:

Headphones output: Standard jack (1), stereo

Remote control: D-sub 9-pin (1), Sony 9-pin remote interface







Reference input: BNC (1), 0.3Vp-p, 75Ω , sync negative (with loop

through out)

Test: Aux 6-pin (1) (for maintenance)

Time code input: BNC (1)
Time code output: BNC (1)

LCD

LCD display: 6.4-inch VGA (640 × 480) ×2 Speaker: Built-in speakers (2), monaural

Display (2): Counter, Servo Lock, Tape Remain, Battery

Remain, etc.

Audio level meter Ch1, Ch2 (indication of Ch3,4 is also available by

switch)

DNW-A100(NTSC) /A100P(PAL)

Digital Video Hybrid Recorder

 Superb picture and high sound quality of Betacam SX format •Combines VTR and hard disk drive in a single unit •High-performance non-linear editing functions •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Gives up to 86 (NTSC)/90 (PAL) minutes of recording on the built-in hard drive •Uses same 1/2-inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format •Same size cassette tape as Betacam SP provides longer recording times: up to 62 minutes on a single Scassette tape, 194 minutes on a L-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Faster than real-time recording and playback: records video and audio material from Betacam SX tape to the hard drive at up to 4x normal play speed; plays back the edited material from the hard drive at 2x normal play speed (Simple GOP edit mode) while non-edited material at 4x normal play speed •Downloads and digitizes analog Betacam/Betacam SP tapes to the hard drive at normal play speed •Edited material on the hard drive can be copied onto Betacam SX tape at normal play speed •SDTI (SX) interface for highspeed transfer of video/audio materials at up to 4x real-time •Compact design to keep the same dimensions as Betacam SP VTRs •525/60, 625/50 switchable in a component environment •Easy and simple operation from the front panel •Voice-over recording •Speed search with VTR: ±50 times normal play speed •SDI input/output •Either an analog composite input or analog component input selectable •Three analog composite outputs and one analog component output •Analog 4ch audio input/output (AES/EBU digital audio input/output can be selected as an option instead) •RS-422A 9-pin remote control interface •RS-232C remote control interface •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: AC power code (1)

RCC-5G 9-pin remote control cable (1) PSW 4 x 16 screws for rack mounting (1)

Operation manual (1)
Optional accessories: BKNW-103 SDTI Input Kit

BKNW-104 Analog Component Input Board

BKNW-105 AES/EBU I/F Kit BKNW-120 Control Panel BKNW-121 Control Panel Case BKNW-122 Control Panel Extension Kit

BKNW-123 Modification Kit

BKDW-505/506 Analog Composite Decoder Board

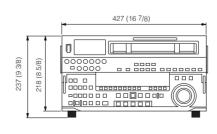
RMM-111 Rack Mount Kit

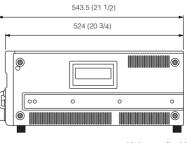






Dimensions





Unit: mm (inch)

DNW-A50(NTSC)/A50P(PAL)

Digital Video Hybrid Recorder

 Superb picture and high sound quality of Betacam SX format •Combines VTR and hard disk drive in a single unit •High-performance non-linear editing functions •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Gives up to 86 (NTSC)/90 (PAL) minutes of recording on the built-in hard drive •Uses same 1/2-inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format •Same size cassette tape as Betacam SP provides longer recording times: up to 62 minutes on a single Scassette tape, 194 minutes on a L-cassette •Current Betacam SP metal tape cassettes can be used for Betacam SX recording (with Betacam SX, recording time is double the stated duration of the Betacam SP tape) •Downloads and digitizes analog Betacam/Betacam SP signals on a tape to the hard drive at normal play speed •Edited material on the hard drive can be copied onto Betacam SX tape at normal play speed •Compact design to keep the same dimensions as Betacam SP VTRs •525/60, 625/50 switchable in a component environment •Easy and simple operation from the front panel •Voice-over recording •Speed search with VTR: ±50 times normal play speed •SDI input/output •Either an analog composite input or analog component input selectable •Three analog composite outputs and one analog component output •Analog 4ch audio input/output (AES/EBU digital audio input/output can be selected as an option instead) •RS-422A 9-pin remote control interface •RS-232C remote control interface •High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: AC power code (1)

RCC-5G 9-pin remote control cable (1) PSW 4 x 16 screws for rack mounting (4)

Operation manual (1)

Optional Accessories: BKNW-104 Analog Component Input Board

BKNW-105 AES/EBU I/F Kit **BKNW-120 Control Panel BKNW-121 Control Panel Case** BKNW-122 Control Panel Extension Kit

BKNW-123 Modification Kit

BKDW-505/506 Analog Composite Decoder Board

RMM-111 Rack Mount Kit







DNW-A50 Rear Panel

•	cificatio		DNW-A100/A100P DNW-A50/A50P		
	Power rea	quirements	AC 90V to 265V, 48Hz to 64Hz		
	Power cor		320W 320W 300W		
a		temperature	+5°C to +40°C (+41°F to +104°F)		
er			-20°C to +60°C (-4°F to +140°F)		
General	Storage temperature				
ŏ	Humidity		25% to 80% (relative humidity) 35 kg (77 lb 2 oz)		
	Mass				
	Dimension	ns (including feet)	$427(W) \times 237(H) \times 524(D) \text{ mm } (16\% \times 9\% \times 20\% \text{ inches})$		
	Recording		Betacam SX		
	Tape speed Betacam SX		59.515 mm/s (525 mode), 59.575mm/s (625 mode)		
~	Betacam/SP playback		118.6mm/s (NTSC)/101.5mm/s (PAL)		
VTR	Digital record/playback time		Max. 194 min. with BCT-194SXLA cassette		
>	Fast forward/rewind time		Approx. 3 min. with BCT-194SXLA cassette		
	Servo lock time		0.5 sec. or less (from standby on)		
	Load/unload time		6 sec. or less		
	Record/playback time		86 (NTSC)/90 (PAL) min.		
J	Smooth JOG speed range		-1 to +1 times normal playback speed		
જે		speed range	±50 times normal playback speed		
DISK		duration of Edit EVENT	0.5 sec.		
		record/feed speed	4 times normal playback speed 1 times normal playback speed		
		,			
	Video input		BNC (1) with active through out, SMPTE259M (NTSC) / ITU-R BT.656-3 (PAL), 270Mbits/s		
		SDTI (SX) (option)	BNC (1), with use of optional		
		A . 1	BKNW-103 input board		
		Analog component (option) *	BNC (1) (Y/R-Y/B-Y), with use of optional BKNW-104 input board		
			Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.7Vp-p, 75Ω		
		Analog composite (option) *	BNC (2, with loop through) 1.0Vp-p, 75Ω, sync negative		
			with use of the optional BKDW-505(NTSC) / 506(PAL)		
		Reference	BNC (2, with loop through 0.3Vp-p, 75 Ω , sync negative		
	Video output	t SDI	BNC (2) SMPTE259M (NTSC) / ITU-R BT.656-3 (PAL), 270Mbits/s		
		SDTI (SX)	BNC (2)		
		Analog component	BNC (3 for 1 set, Y/R-Y/B-y), Y: 1.0Vp-p, 75Ω, sync negative, R-Y/B-Y: 0.7Vp-p, 75Ω		
ß		Analog composite	BNC (3) (including one character out), 1.0Vp-p, 75Ω, sync negative		
Ž	Audio input	Digital (CH 1/2, 3/4) SDI-embedded	BNC (1) (video & audio), SMPTE259M (NTSC) / ITU-R BT.656-3 (PAL), 270Mbits/s		
¥		AES/EBU**	BNC (2), stereo mode, with use of optional BKNW-105 board		
δl		Analog (CH 1,2,3,4) **	XLR-3-31 type (4)		
s/		3 (, , , , ,	LOW OFF: -60dBu, high impedance, balanced		
Ž			HIGH OFF: +4dBu, high impedance, balanced		
Inputs/Outputs			HIGH ON: +4dBu, 600Ω termination, balanced		
_	Audio output	Digital (CH 1/2, 3/4) SDI-embedded	BNC (1) (video & audio), SMPTE259M (NTSC) / ITU-R BT.656-3 (PAL), 270Mbits/s		
	/ laalo calpai	AES/EBU **	BNC (2), stereo mode, with use of optional BKNW-105 board		
		Analog (CH 1,2,3,4) **	XLR-3-32 type (4), +4dBu at 600Ω load, low impedance, balanced		
		Headphones	JM-60 stereo phone jack, -∞ to -12dBu at 8Ω load, unbalanced		
		Monitor L/R	XLR-3-32 type (2), +4dBu at 600Ω load, low impedance, balanced		
	Time code	Input	XLR-3-31 type (1), 0.5 to 18Vp-p, 10kΩ, balanced		
	Time code	Output	XLR-3-32 type (1), 2.2Vp-p, low impedance, balanced		
	Remote	Remote 1 (In/Out)	D-sub 9-pin, RS-422A interface		
	rtemote	RS-232C	D-sub 25-pin, RS-232C interface		
		SCSI	68-pin, female		
		Video control			
C)			D-sub 15-pin (for the optional BVR-50/50P Remote Controller)		
range	Video leve		±3dB/-∞ to 3dB selectable		
	Chroma le		±3dB/-∞ to 3dB selectable		
Processor adjustment		vel (NTSC only)	±30IRE		
stm		el (PAL only)	±210mV		
djü	Chroma p		±30°		
r a	System Sy		±15µs		
SSO	System So		±200ns		
ce	Y/C delay		±100ns (Betacam/Betacam SP playback only)		
Pro	Composite	e input	±3dB		
	_	frequency	Y: 13.5MHz R-Y/B-Y: 6.75MHz		
9	Quantizati		8bits/sample		
an	Error corre	-	Reed-solomon code		
Digital video performance		t to analog component output	K-factor (2T pulse): 1% or less		
rf0		nt input (option) to analog component output	Input A/D quantization: 8 bits/sample		
bel	Analog componen	it input (option) to analog component output	K-factor (2T pulse): 1% or less		
စ္က			LF non-linearity: 3% or less		
ġ	Analas samassita	input (antian) to analog composite output	Differential gain: 2% or less		
=	Analog composite	input (option) to analog composite output	•		
git			Differential phase: 2° or less		
ٔ			Y/C delay: 15ns or less		
			K-factor (2T pulse): 1% or less		
Se		frequency	48kHz (synchronized with video)		
anc	Quantizati		16bits/sample		
Ë	Analog input to	o output A/D and D/A quantization	16bits/sample		
٥		y response (0dB at 1kHz)	20Hz to 20kHz +0.5dB/-1.0dB		
performance		nge (at 1kHz, emphasis ON)	More than 90dB		
.0		kHz, emphasis ON, reference level)	Less than 0.05%		
B		1kHz, between any two channels)	Less than –80dB		
a	Wow & flu		Below measurable level		
			20dB (18dB selectable)		
Emphasis (ON/OFF selectable)			T1=50µs, T2=15µs		
_	Emphasis (ON/OFF selectable)		ι ι – ο ο μος τ 2 – τ ο μο		

^{*} Either analog component or composite input can be selected as an option.
** Either analog or AES/EBU audio input/output can be selected as an option.

DNW-A22(NTSC)/A22P(PAL)

Digital Video Cassette Player with Analog Playback

•Superb picture and high sound quality of Betacam SX format •Component digital recording using the advanced compression algorithm of MPEG-2 4:2:2P@ML •4 channels of 16-bit/48kHz digital audio •Uses same 1/2-inch tape as Betacam/Betacam SP and maintains playback compatibility with current analog Betacam/Betacam SP format •Both Ssize and L-size cassettes can be used •Compact design to keep the same dimensions as Betacam SP VTRs •525/60, 625/50 switchable in the composite output

•Easy and simple operation from the front panel •Speed search with player: ±50 times normal play speed •Two analog composite outputs •RF Adaptor output •Analog 2ch audio output •RS-232C remote control interfac•High reliability and easy maintenance with sophisticated diagnostic system

Supplied accessories: PSW 4 x 16 screws for rack mounting (4)

Maintenance Manual (Part 1) (1)

Operation Manual (1)

Optional accessories: RMM-111 Rack Mount Kit

RFU-89KB RFU Adaptor Kit







She	specifications				
			DNW-A22	DNW-A22P	
	Power requirements		AC 100V to 240V, 50/60Hz		
	Power consumption		190W		
	Operating temperature		+5°C to +40°C (+41°F to +104°F)		
	Storage temperature		-20°C to +60°C (-4°F to +140°F)		
	Humidity		25% to 80% (relative humidity)		
=	Mass		32kg (70 lb 9 oz)		
ers	Dimensions (including feet)		427(W) × 237(H) × 524(D) mm (167/6 × 93/6 × 203/4 inches)		
General	Tape speed	Betacam SX	59.515 mm/s (525 mode)	59.575mm/s (625 mode)	
ဖ		Betacam playback	118.6mm/s	101.5mm/s	
	Digital playback time		Max. 194 min with BCT-194SXLA cassette		
	Fast forward/Rewind time		Approx. 3 min with BCT-194SXLA cassette		
	Search speed range		±50 times normal playback speed		
	Servo lock time		0.5s or less (from standby on)		
	Load/unload time		6s or less		
ဟ	Video output	Analogue composite	BNC (2) (including one character out), 1.0Vp-p, 75Ω		
outputs	Audio output	Headphones	JM-60 stereo phone jack, -∞ to -12dBu at 8Ω load, unbalanced		
Ħ		Monitor L/R	XLR-3-32 type (2), +4dBu at 600Ω load, low impedance, balanced		
	RFU output	RFU video	Pin jack (1), 1.0Vp-p, 75Ω, sync negative		
Signal		RFU audio	Pin jack (1), -10dBu at 47k Ω , unbalanced		
တ		RFU DC	Ø2.5mm jack, +5V DC/GND		
Others	Remote RS-232C D-sub 25-pin (female), RS-232C interface		e), RS-232C interface		

CA-701(NTSC/PAL)

Camcorder Adaptor for DVW-707/709WS/790WS series. DNW-7/9WS/90/90WS series and DNV-5

•4-channel audio recording capability •Access to audio channels 3 and 4 via connectors (XLR × 2) •Microphone phantom power •Independent input level control and metering for channels 3 and 4 •Two SDI output (BNC × 2) •Compact and light weight with low power consumption •Versatile audio monitoring •Direct connection to the camcorder via the camcorder's built-in 40-pin connector •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Flexible power connections

Supplied accessories: Operation manual (1)

Maintenance manual (1)

Optional accessories: BC-155 expansion board

BP-L60, BP-L90 battery pack DC-L1, DC-L90 battery adaptor

WRR-860A UHF synthesized diversity tuner

AC-550/550CE AC adapor BVF-55/55CE 5-inch viewfinder

Rain-proof cover (Part No.3-188-446-01)

Specification

General

Power requirement: Approx. DC12V + 5.0/-1.0V

Power consumption: Approx. 7W

Operating temperature: 0°C to +40°C (+32°F to +104°F)
Storage temperature: -20°C to +60°C (-4°F to +104°F)
Humidity: 25% to 85%(relative humidity)
Approx. 1.0kg (2 lb 3 oz)



Input/output connectors

AUDIO IN CH-3/4: XLR-3-31 type (female) (2)

 $\begin{array}{ccc} & & & & & & & & & \\ & & & & & & & \\ \text{AUDIO OUT:} & & & & & \\ \text{DC IN:} & & & & & \\ \text{DC OUT:} & & & & \\ \text{SDI OUT:} & & & & \\ \text{BNC type} \times 2, 0.8 \text{ Vp-p}, 75\Omega \end{array}$

CAMERA: 40-pin

CA-702(NTSC)/702P(PAL)

Camcorder Adaptor for DVW-707/709WS/790WS series, DNW-7/9WS/90/90WS series and DNV-5

•External SDI or analog composite input signal recording capability •SDI or analog component signal output capability via a CCZ 26-pin connector •SDI or analog composite output via a BNC connector •Compact and light weight with low power consumption •Direct connection to the camcorder via the camcorder's built-in 40-pin connector •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Flexible power connections

Supplied accessories: Operation manual (1)

Maintenance manual (1)

Optional accessories: BC-155 expansion board BP-L60, BP-L90 battery pack DC-L1, DC-L90 battery adaptor

WRR-860A UHF synthesized diversity tuner

AC-550/550CE AC adapor BVF-55/55CE 5-inch viewfinder

Rain-proof cover (Part No.3-188-446-01)

Specification

General

Power consumption: MAX. 5.5W Mass: Approx. 0.9kg (2lb)

Dimensions: $165(w) \times 195.5(H) \times 65(D) \text{ mm}$

Input/output connectors

DC IN: XLR-4-pin type, male

 DC OUT:
 4-pin

 SDI/Composite IN:
 BNC type (1)

 SDI OUT:
 BNC type (1)

 CAMERA:
 40-pin

 VTR:
 CCZ-26-pin



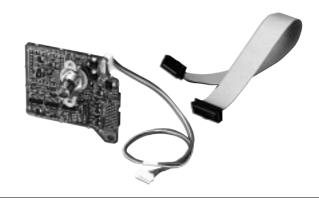
BKNW-25

DV Interface Unit for two DNW-A25/A25P



BETACAM SX CAMCORDERS/VTRS/ HYBRID RECORDERS

BKNW-103 SDTI (SX) Input Kit for DNW-A100/A100P



BKNW-104Analog Component Input Board for Hybrid Recorders and DNW-A75/A75P



BKNW-105
AES/EBU I/F Kit for Hybrid Recorders and DNW-A75/A75P





BKNW-118

SDTI (SX) Output Board for DNW-A75/A75P/75/75P/ A65/A65P/65/65P Betacam SX Studio VTRs and Players





BKNW-119

Control Panels for DNW-A75/A75P/75/P Betacam SX Studio VTRs and DNW-A65/A65P/65/65P Betacam SX Players



BKNW-120

Control Panels for DNW-A100/A100P/A50/A50P Betacam SX Hybrid Recorders and DNW-A22/A22P Betacam SX Players



BKNW-121

Control Panel Case for BKNW-119 and BKNW-120



BKNW-122

Control Panel Extension Kit for BKNW-119 and BKNW-120



BKNW-123

Modification Kit required for DNW-A100/A100P/ A50/A50P/A22/A22P for operation with BKNW-120





BKNW-225

Docking Kit for two DNW-A25/A25P



BKDW-505 (NTSC)/**506** (PAL) Analog Composite Decoder Board



VA-DN1 Interface Box



WRR-855A

Slot-in Wireless Microphone Receiver for Betacam SX Camcorders



WRR-860A

Wireless Microphone Receiver for Betacam SX Camcorders





WRR-810A

Wireless Microphone Receiver for Betacam SX Camcorders



LC-DN5

Carrying Case for DNV-5



LC-DN7

Carrying Case for Betacam SX Camcorders



LC-DN220

Carrying Case(Hard) for DNW-A220/A220P/A225/A225P



RMM-111 Rack Mount Kit





BCT-12SXA/22SXA/32SXA/62SXA BCT-64SXLA/94SXLA/124SXLA/ 184SXLA/194SXLA

BCT-SX Series Betacam SX Tapes

Model	Tape length m (ft)	Playing time (min)	Mass g (lb)
BCT-12SXA	52 (171)	12	225 (0.50)
BCT-22SXA	88 (289)	22	230 (0.51)
BCT-32SXA	124 (407)	32	240 (0.53)
BCT-62SXA	231 (758)	62	270 (0.59)
BCT-64SXLA	241 (791)	64	600 (1.32)
BCT-94SXLA	349 (1145)	94	630 (1.39)
BCT-124SXLA	456 (1496)	124	655 (1.44)
BCT-184SXLA	671 (2201)	184	710 (1.56)
BCT-194SXLA	707 (2320)	194	720 (1.59)



DNE-1000	54
DNE-700	55
DLE-110	56
DEP-100	57
BKNE-1010	58
BKNE-1011	58
MAV-500	58
MAV-S100	58
MA\/_S110	50

DNE-1000 (NTSC/PAL)

Digital Editing Workstation System

•User friendly interface •Advanced disk control - instant and simultaneous access •Broadcast quality multi-effects — including 434 preset effect patterns, 32 original background patterns, and 40 user effects •Various optional video effects — such as chroma keyer, linear keyer, downstream keyer, flying key, 3-D effect, lighting effect and trail effect •Audio effects — in addition to a wide-range of equalizer and filtering sections, a built-in 20-channel audio mixer for 4-channel mix down •Flexible voice over ability •Identity/voice disguise •Convenient central server connection •System flexibility — non-linear component editing, 525/625 switchable, and 4:3 or 16:9 selectable

Supplied Accessories: Rack mount kit (1)

75Ω terminal (1)
Operation manual (1)
Maintenance manual part 1 (1)
D-sub 15pin Cable (10m) (1)

System Configurations: BKNE-1010 Editing Control Panel

BKNE-1011 Editing Fader Panel
BKNE-1020 Audio Processor Board
BKNE-1030 Extended Input and Keyer Board
BKNE-1031 Frame Memory Board

BKNE-1040 Video Effects Board BKNE-1041 3D/Lighting/Trail Effects Board BZNE-1010 Operating Program (Japanese

version)

BZNE-1020 Operating Program (English version)

System Peripherals: BKV-100 Live Video Overlay Board

MAV-500 Multi Access Video and Audio Server MAV-S100 Hard Disk Drive Array Unit MAV-S110 Hard Disk Drive Array Unit BVM Series Video Master Monitor

Specifications

General

Power requirements: AC 100 to 240V, 50/60Hz

Power consumption: Approx. 350W Operating voltage: AC 90 to 264V

Operating temperature: 5°C to 40°C (41°F to 104°F)

Mass (Approx.): 40°M (including optional boards)

Dimensions (Approx.): $424^{\circ}\text{M} \times 221^{\circ}\text{M} \times 450^{\circ}\text{M}$ mm $424^{\circ}\text{M} \times 221^{\circ}\text{M} \times 450^{\circ}\text{M}$ mm $424^{\circ}\text{M} \times 221^{\circ}\text{M} \times 450^{\circ}\text{M}$ inches)

Input/Output Connectors

Primary input: SDI(BNC) - 4 (expandable to 8 with BKNE-1030)

Reference input: B.B. or Sync (BNC) - 1 with loop-through

Audio AUX input: AES/EBU (XLR-3) - 4

TC input: Analog TC - Male and Female (loop-through)

Programme output: SDI (BNC) - 3
Preview output: SDI (BNC) - 2
Capture output: SDI (BNC) - 1
Audio programme output:AES/EBU (XLR-3) - 2
Audio monitor output: Analog (XLR-3) - 2

Remote Connectors

Control panel: RS-422A (D-sub 15-pin) - 1

Device control: RS-422A (D-sub 9-pin) - 4 (expandable to 10 with

BKNE-1030)

Ethernet port: 10 Base 5(D-sub 15-pin) - 1

GPI IN: TTL - 4 ports

GPI OUT: TTL - 4 ports, TTL or Relay - 4ports

Terminal: RS-232C(D-sub 9-pin) - 1



DNE-700

Digital News Editing System

•Familiar GUI specifically designed for news editing (also utilized by other news related editing systems, the Sony DNE-1000) •Easy and simple operation from the dedicated control panel •Good Shot Mark handling •Broadcast quality multi-effects — including over 100 wipes and more than 150 2D effects (with the Sony DEP-100) •Audio Split Editing and level control •Functions as a editing controller for Sony Hybrid recorders during on-line use providing picture-based non-linear editing (video is compressed using the MPEG-2 4:2:2P@ML and audio is recorded at full 16-bit/48kHz)

Supplied Accessories: Control panel

Software for GUI and operation

Connector panel

Connector panel (Remote-2)

Processor board Operation manual

Installation/maintenance manual

Installation cables Short-cut key label

Optional System Components:

DEP-100 Digital Effect Processor BZNA-N100 News Editing Network Licence

(DNE-700 for Network)

Specifications Control panel

Mass: Approx. 1.4Kg (3 lb 1oz) Dimensions: 237(W) × 84(H) × 202(D) mm (9 % × 3 % × 8 inches) Power requirements: Supplied from PC

Operating temperature: +5°C to +40°C (+41°F to +104°F)

Connector panel

Approx. 60g (2oz) Mass:

40(W) × 101(H) mm (1 5% × 4 inches) Dimensions:

Power requirements: No power required

+5°C to +40°C (+41°F to +104°F) Operating temperature:

Connector panel (Remote-2)

Apporx. 40 g (1 oz) Mass:

Dimensions: 40 (W) × 58 (H) mm (1 5% × 2 3% inches)

Power requirements: No power required

+5 °C to +40 °C (+41 °F +104 °C) Operating temperature:

Processor board

Mass:

Approx. 280g (10oz) $120(W) \times 305(H)$ mm (4 $\frac{3}{4} \times 12 \frac{1}{8}$ inches) Dimensions:

Power requirements: Supplied from PC

+5°C to +40°C (+41°F to +104°F) Operating temperature:

Recommended PC: Compaq™ Deskpro EP Series (Computer display

monitor is also required) Recommended SCSI Adaptor:

. Adaptec™ AHA-2940AU, AHA-2930U2



DLE-110 (NTSC/PAL)

Non-Linear Live Editing System

•Specifically designed Non-Linear Editing System for Live Applications • Employing Sony DNW Series disk/tape Hybrid recorder as its storage system •Simultaneous recording & editing to air •Broadcast quality video & audio -8-bit, 4:2:2 component digital video and 4-channel, 16bit/48kHz digital audio •About 90 minutes of video and audio storage on the hard disk of the Hybrid Recorder (the maximum of 6 hours of additional recording with the BKNW-116) •Loop recording on hard disk with file protection •Back up recording •High speed uploading from tape to disk (DNW-A100/P) •Live-oriented Graphical User Interface (GUI) •Two editing modes - Picture Editing Mode and Time-Line Editing Mode •The BKLE-102 Dynamic Motion Controller provides speedy control of the storage system in VARIABLE, JOG and SHUTTLE modes •Variable-speed slow motion playback over a range of -1 to

 Compact system Supplied Accessories:

BZLE-102 DLE-110 Operation Manual (J/E)

+1 times play speed •DMC Learn Playback function

DLE-110 Installation Manual

BKLE-101PCI Interface Board

Installation/Maintenance Manual Half-pitch 50-pin Multicable (1.5m)

75Ω Terminator

BKLE-102 Installation/Maintenance Manual

D-sub 15-pin (Female-Male) Remote Cable (1m)

BZLE-102 Operating Software System Configurations:

BKLE-101PCI RS-422 System Control Interface **BKLE-102 Dynamic Motion Controller** BKLE-103PCI Dual Channel Color Video Board DNW-A100/A50 Digital Video Hybrid Recorder Apple® Power Macintosh® Series Computer Computer Monitor (20-inch recommended)

Specifications

AC 100V to 120V ±10% Power Requirements:

AC 220V to 240V ±10%

Power Consumption: BKLE-101PCI 10 VA

BKLE-102 10 VA

BKI F-101PCI 4.5kg (9 lb 15 oz) **BKLE-102** 2.8kg (6 lb 3 oz)

Dimensions:

BKLE-102

BKLE-101PCI 482(W) × 44(H) × 350(D) mm

 $(19 \times 1 \frac{3}{4} \times 13 \frac{7}{8} \text{ inches})$ 265(W) × 85(H) × 222(D) mm

 $(10 \frac{1}{2} \times 3 \frac{3}{8} \times 8 \frac{3}{4} \text{ inches})$





DEP-100

Digital Effect Processor

•Superb picture quality (8-bit, 4:2:2 digital signal processing) •Broadcast quality multi-effects — including over 100 wipes, more than 150 2D effects, 32 present background patterns, and matte generator for border effects and DSK •Audio Delay Compensation •No dedicated control panel (designed to be controlled from a DNE-700, and DLE-110) •Built-in Floppy Disk Drive (Graphics can be recalled to the internal frame memory by using TIFF and BMP formats •525/60,625/50 switchable operation •Four SDI outputs (program output) •Analog composite output (monitoring output) •Sony 9-pin remote control interface •Two RS-232C remote control interface (D-sub 25-pin for ISR and D-sub 9-pin for mouse)

Supplied accessories: Rack mount kit (1)

Installation manual (1)
Maintenance manual (1)

Specification

General

Power requirements: AC 100V to 240V Power consumption: 1.0 ~ 0.5A

Video inputs/outputs

Digital input: MAIN IN SDI, BNC (1), 75Ω SUB IN SDI BNC (1), 75Ω

 $\begin{array}{lll} \text{SUB IN} & \text{SDI, BNC (1), } 75\Omega \\ \text{DSK FILL IN} & \text{SDI, BNC (1), } 75\Omega \\ \text{DSK KEY IN} & \text{SDI, BNC (1), } 75\Omega \\ \text{PGM OUT} & \text{SDI, BNC (4), } 75\Omega \\ \end{array}$

Digital output: PGM OUT Analog input: REF VIDEO

Composite video, BNC (2, loop through),

high-impedance

Analog output: MONITOR Composite video, BNC (1), 75Ω

Video effects

Effect: 1-Mix/Effect + 1 DSK Cut, Mix, Wipe/DME

Effect pattern: Wipe 108 patterns

2D DME More than 150 patterns

DSK: Key type Linear

Key adjust Clip, Gain

Internal video: Matte Generators for Color Background,

Border, DSK Fill, etc., Pattern Generators for

brick, block, etc.

Remote inputs/outputs

REMOTE-1 (IN/OUT): D-sub 9-pin (female x2), Sony 9-pin interface REMOTE-2: D-sub 25-pin (female), RS-232C interface D-sub 9-pin (male), RS-232C interface D-sub 9-pin (male), RS-232C interface EFFECT / KEY ON / KEY OFF



BKNE-1010

Editing Control Panel for the DNE-1000



BKNE-1011

Editing Fader Panel for the DNE-1000



MAV-500

Multi Access Video and Audio Server

A storage device for DNE-1000 Digital Editing Workstation System

Specifications

Power requirements: Power consumption: AC 100V to 240V, 50/60Hz

Approx. 280W

+5°C to +40°C (+41°F to +104°F) -20°C to +60°C (-4°F to +140°F) Operating temperature: Storage temperature:

10% to 90% Operating humidity:

Mass: Approx. 26Kg (57 lb 4 oz) 424(W) × 266(H) × 470(D) mm (16 ¾ × 10 ½ × 18 ½ inches) Dimensions:



MAV-S100

Hard Disk Drive Array Unit

A storage device for DNE-1000 Digital Editing Workstation System

Specifications

AC 100V to 240V, 50/60Hz Power requirements:

Power consumption: Approx. 400W

Operating temperature: +5°C to +40°C (+41°F to +104°F) -20°C to +60°C (-4°F to +140°F) Storage temperature:

Operating humidity: 10% to 90%

Mass: Approx. 29Kg (63 lb 15 oz) Dimensions: 424(W) × 132(H) × 574(D) mm $(16^{3/4} \times 5^{1/4} \times 22^{5/6})$ inches)

Recording capacity: 30.1GB



MAV-S110

Hard Disk Drive Array Unit
A storage device for DNE-1000 Digital Editing Workstation System

Specifications

Power requirements: Power consumption: AC 100V to 240V, 50/60Hz

Approx. 400W

Operating temperature: +5°C to +40°C (+41°F to +104°F) -20°C to +60°C (-4°F to +140°F) Storage temperature: Operating humidity: 10% to 90%

Approx. 29Kg (63 lb 15 oz)

424(W) × 132(H) × 574(D) mm (16 ³/₄ × 5 ¹/₄ × 22 ⁵/₆ inches) Dimensions:

Recording Capacity: 63.7GB



BZNW-100 (SXnet™))62
BZN-350/3500 (News	sBase™)63

BZNW-100 SXnet Operating Program BZNW-A101 Feed Client Software BZNW-A102 Network Proxy Operation Software

BZM-NW100 SXnet Master Disk



•Audio/video file transfer function among DNE-700, DLE-110 and the Sony Hybrid Recorder •SDTI transfer from Feed Client VTR/Hybrid Recorder or Playout Hybrid Recorder's HDD •Multiple program transfer job •Program transfer for multiple points •Preview on SXnet server with capture board BKV-100 •Push and pull transfer from editor to editor •File protection •Up to 20 clients can work on one SXnet system with the additional client license BZNA-N100 (5-clients license) •Transfer waiting/progress display •Queue event order change •HTML creation •Simultaneous recording and playout for Hybrid Recorder •Interface with newsroom computer (Betacart® host Interface)



•Playout function using Sony Hybrid Recorder's built-in hard disk drive •Sequential playback function •External remote control with optional BKLE-102 control panel •Back-up recording •Easy operation by drag-and-drop •As run log list for playout •GPI trigger •Quick operation for last minutes change



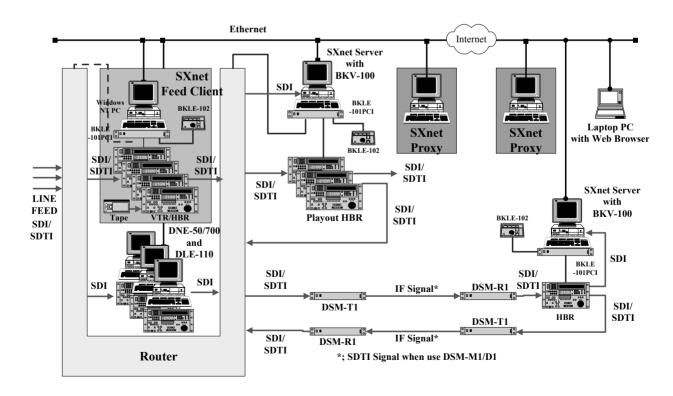
Feed Client

•BZNW-A101 provides feed receive VTR control capability
•One BZNW-A101 license allows installing into up to five
Feed Client PC •Up to four VTRs and Hybrid Recorders work
on one Feed Client PC •Betacam (BVW, DVW, DNW) and
DVCAM series standalone VTR can work as SXnet feed
receive recorder •SDTI program transfer •External remote
control with optional BKLE-102 control panel •Simultaneous
Hybrid Recorder recording and playback control •Daily
scheduled recording

Proxy Control

•BZNW-A102 allows long-distanced "NewsBase and SXnet" or "SXnet and SXnet" mutual communication •Long-distanced material distribution via SDTI •Multiple system connection •Multiple clients connection without BZNW-100

- •Up to 10 clients can be connected to the system via TCP/IP
- (Up to 20 clients with BZNA-N100 additional license)
- •Two Hybrid Recorders can be used as playout devices
- One Hybrid Recorder can be used as playout device
- •GPI supports the following actions: 'play', 'change' and 'standby'
- •Transfer signal format: SDI and SDTI
- •Minimum recording time for seamless playback: 32 frames
- •Maximum recording time: six hours with BKNW-116
- •Minimum time for playback after recording starts: 32 frames
- •Maximum filing number on playout Hybrid Recorder and each editor: 255 files



SXnet Overall System Configuration

BZN-350 Sony Server Entry Package

(Optional softwares available)

BZNA-350 I/O Expansion 5 to 6

BZNA-351 I/O Expansion 6 to 8

BZN-3500 Server Management Software

(Optional softwares available)

BZNA-301 1 Client License

BZNA-311 OCX Control License Package

BZNA-302 Twin Server Option

BZNA-303 Database Mirroring Option

BZNA-304 Server Expansion Kit

BZNA-305 High Speed Transfer Kit

BZNA-306 Multiple Playlist Option

BZNA-307 On-Air Mirroring Kit

BZNA-3501 Betacart Host I/F

BZNA-3502 NCS I/F

•Scalable and Upgradable System •Dynamic I/O Control •MPEG-2 4:2:2P@ML video and 16-bit/48kHz high quality audio •Centralized material management •Direct On-Air •DNE-700/DNE-1000 Network Editing •Low resolution desktop browsing and editing •Faster/Multiple accessing to the material •Integrate with Newsroom Text System

* BZN-350 Sony Server Entry Package

This includes the following software and licenses as a standard. Server Management Software

License Agreement for

BZN-100: ClipServer Management software

BZNA-E100 x 2: ClipI/O

BZNE-100 x 4: ClipEdit Software
BZNE-100 x 4: Software Decoder
BZNA-3502: NCS I/F
BZNA-301 x 5: 5 client license

- I/O port can be expandable up to 5 ports by adding BKMA-1010 I/O control board.
- ClipEdit can be expandable with extra BZNE-100 ClipEdit Software.
- Minimum System: 4 x I/O 1 x Server
- Maximum System: 8 x I/O 1 x Server (by adding options)

News Base

(Optional softwares)

* BZNA-350 I/O Expansion 5 to 6

By using BZNA-350, I/O port can be expanded from 5 to 6, besides adding BKMA-1010 I/O control board to the MAV server. This option supports up to 7 I/O ports system.

* BZNA-351 I/O Expansion 6 to 8

By using BZNA-351, I/O port can be expanded from 6 to 8, besides adding BKMA-1010 I/O control board to the MAV server.

* BZN-3500 Server Management Software

This is core software of NewsBase Server System.

- Minimum System: 6 x I/O 1 x Server
- Maximum System: 4 x Daily Server 8 x I/O

3 x On-Air Server 8 x I/O Mirroring each On-Air Server (by adding options)

(Optional softwares)

* BZNA-301 1 Client License

This is required to connect 1 client to Server. It is needed each client.

* BZNA-311 OCX Control License Package

This includes 5 license to use the OCX client application. The OCX client application can be plugged-in to the third party application such as Newsroom Computer System.

* BZNA-302 Twin Server Option

This is required to configure Material and On-Air Server separately.

* BZNA-303 Database Mirroring Option

This is required to support mirroring of Database Server.

* BZNA-304 Server Expansion Kit

This is required to expand the system by adding MAV Server. This is needed each added MAV Server.

* BZNA-305 High Speed Transfer Kit

This is required to support High Speed Transfer when installing SDTI I/O to Server

* BZNA-306 Multiple Playlist Option

This is required to support multiple playlist. This is needed each playlist.

* BZNA-307 On-Air Mirroring Kit

This is required to support mirroring On-Air Server.

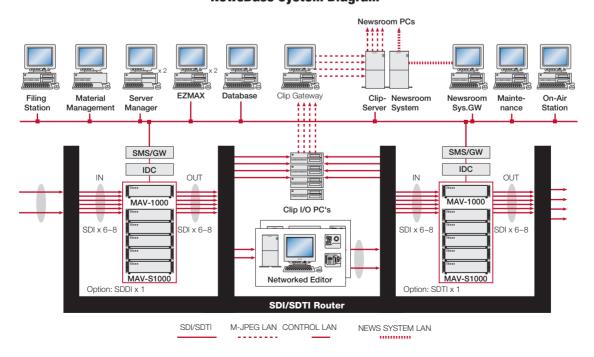
* BZNA-3501 Betacart Host I/F

This is required to connect NCS by Betacart Host I/F.

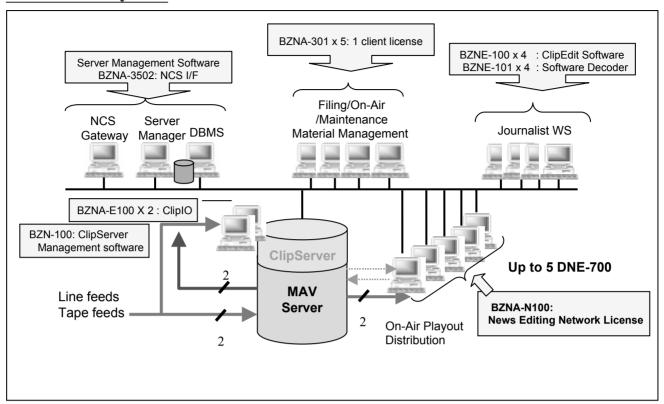
* BZNA-3502 NCS I/F

This is required to connect NCS by MOS protocol on TCP/IP network.

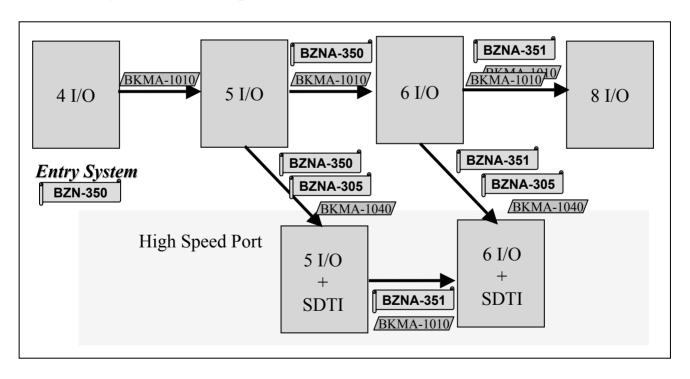
NewsBase System Diagram



4 I/O Server System



System Migration (I/O Expansion)



Digital BETACAM

DVW-707/707P	66
DVW-709WS/709WSP	68
DVW-790WS/790WSP	
DVW-250/250P	72
DVW-A500/A500P	
DVW-500/500P	
DVW-A500/1, A500P/1, 500/1, 500P/1	75
DVW-A510/A510P	
DVW-510/510P	
DVW-522/522P	
CA-755/755P	
CA-701	
CA-702/702P	81
BKDW-508	
BSC-1-Pack	83
BKDW-701	83
BKDW-702	83
BKDW-703	83
BKDW-515	83
BKDW-514	84
BKDW-510/511	84
BKDW-509	84
BKDW-507	84
BKDW-505/506	84
BKDW-250	85
RMM-110	85
LC-777	85
BCT-D6/D12/D22/D32/D40	
BCT-D34L/D64L/D94L/D124L	85
BCT-D12CL	86

DVW-707(NTSC)/707P(PAL)

Digital BETACAM One Piece Camcorder

 Superb picture and high sound quality of Digital BETACAM format •12-bit A/D converter •High performance ADSP (Advanced Digital Signal Processing)camcorder •Incorporates digital signal processing camera circuit with 3-chip 2/3-inch Power HAD IT CCD (with 410,000(NTSC)/470,000(PAL) picture elements) in the camera section and the Digital BETACAM recording technology in the VTR section to cover most quality conscious EFP applications •Multi Matrix Function for the color correction. •Turbo Gain feature which enables to raise the gain level to +48 dB •Auto Tracing White Balance for adjusting the white balance as lighting conditions change. •TruEye™ Process for faithful color reproduction •Selectable Gamma Curve for more natural tonal reproduction. •Color Temperature Control which allows to change the color balance of the picture to make it warmer or colder. •Assignable Button for ATW, RET, REC, Turbo Gain and other functions •Setup Card system to store all the setup parameters made via the menu system from the camera head •Internal Light System powered from the camcorder's lithium-ion battery. •Stereo Audio Output from the 5-pin XLR connector. •Electronic Shutter Speeds: NTSC: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) PAL: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) •Super Innovative Clear Scan (NTSC: 60.0 to 10156 Hz)(PAL:50.0 to 10101 Hz) function for shooting computer displays •Enhanced Vertical Definition System (EVS) for vertical resolution of 450 (NTSC), 530 (PAL)TV lines •Shot Data Recording of the date and time of shooting, shot ID. cassette number and so on. •LCD panel showing a wide range of status and diagnostic displays. •Field playback capability of full color video and audio without an adaptor •Basic camera control from RM-150 Remote Control Unit Compact and lightweight of approx.7kg including a viewfinder, battery, cassette, microphone and lens •Low power consumption of 29 W •40 minutes of recording time using the S-cassette •Virtually no flare viewfinder with quick start CRT provides high horizontal resolution of 600 TV lines

Supplied accessories: Microphone (1)

Shoulder belt (1) Lens cap (1) XLR cap (4) Maintenance manual (1)

Operation manual (1)

BVF-V10/CE 1.5-inch 4:3 B/W Viewfinder (1)
Optional accessories: BKDW-701 Servo Filter Unit

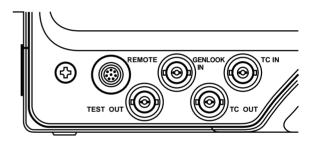
BKDW-701 Servo Filter Utilit
BKDW-702 SDI Output Board
BKDW-703 Picture Cache Board
CA-701 Camera Adapter
CA-702/P Camera Adapter
CA-755/P Camera Adapter
AC-DN1 AC Adapter
AC-DN2A AC Adapter
BSC-1 Pack Setup Card

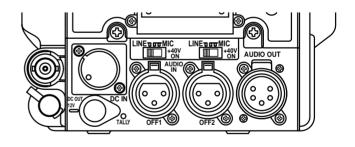
BVF-VC10W 1.35-inch 16:9 Color Viewfinder WRR-860A Wireless Microphone Receiver WRR-855A Wireless Microphone Receiver

(adaptor required)

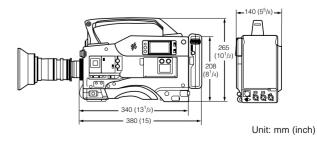








Dimensions



spe	ecifications	DVW 707	
	Mass	DVW-707 DVW-707P Approx. 5.0 kg (11 lb. 1 oz)	
	Operating mass	Approx. 5.0 kg (11 lb. 1 02) Approx. 7.0 kg (15 lb. 7 oz)	
	Power requirements	DC 12 V +5.0/-1.0 V	
ā	Power consumption	29 W	
General	Operating temperature	0 °C to +40 °C (+32 °F to +104 °F)	
	Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)	
	Humidity	25 % to 85 % (relative humidity)	
	Continuos operating time	Approx. 135 min (with BP-L60A)	
		Approx. 205 min (with BP-L90A)	
′0	Genlock video input	BNC(1), 1.0 Vp-p, 75 Ω	
ij	Time code input	BNC(1), 0.5 to 18 Vp-p, 10 kΩ	
Signal Inputs	Audio input (CH-1/2)	XLR 3-pin(2), -60 dBm/+4 dBm	
=		selectable, high impedance, balanced	
ğ	Mic input	XLR 3-pin(2), -60 dBm/+4 dBm	
S		selectable, high impedance, balanced	
ts	Video output	BNC(1), 1.0 Vp-p, 75 Ω	
즆	Video test output	BNC(1), 1.0 Vp-p, 75 Ω	
ਠ	Time code output	BNC(1), 1.0 Vp-p, 75 Ω	
Signal Outputs	Earphone	Mini jack	
Sig	Audio ouput (CH-1/2)	XLR-5-pin male(stereo)	
	Lens	12-pin	
(0	Remote	8-pin	
Others	Light	2-pin, DC 12 V, max. 50 W	
ţ	DC input	XLR 4-pin (for the optional AC-550/550CE)	
0	DC output	4-pin (for wireless microphone receiver), DC 12V	
	Camcorder adapter	40-pin	
	General		
	Recording format	Digital BETACAM	
	Tape speed	96.7mm/s	
	Playback/Recording time	Max. 40 min. with BCT-D40 cassette	
	Fast forward time	Less than 6 min. with BCT-D40 cassette	
	Rewind time	Less than 5 min. with BCT-D40 cassette	
	Recommended tape	Sony Digital Betacam S cassette, BCT-D6/D12/D22/D32/D40 Series	
	Sampling Frequency	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz	
	Quantization Error correction	10 bit/sample Reed-Solomon code	
	Error concealment	Adaptive three dimensional	
	Digital video performance	Adaptive titlee difficilisional	
	Bandwidth	Y: 5.75 MHz +/-0.5 dB, R-Y/B-Y: 2.75 MHz +/-0.5 dB	
	S/N ratio	More than 62 dB	
Ë	k-factor(2T pulse)	Less than 1 %	
Ħ	Linearity	Less than 2 %	
Section	Y/R-Y/B-Y delay	Less than 15 ns	
	Digital audio performance		
YTR	Sampling frequency	48 kHz (synchronized with video)	
_	Quantization	20 bits/sample	
	A/D and D/A quantization	16 bits/sample	
	Frequency response	20 Hz to 20 kHz +0.5 dB/-0.8 dB	
	Dynamic range	More than 85 dB(emphasis ON)	
	Distortion (at 1 kHz, emphasis ON, reference level)	Less than 0.08 %	
	Crosstalk (at 1 kHz, reference level)	Less than -70 dB	
	Wow and flutter Head room	Below measurable limit	
		20 dB (ex-factory setting)	
	Emphasis (ON/OFF selectable) Analog audio performance (Cue track)	T1=50 μs, T2=15 μs	
	Frequency response	100 Hz to 12 kHz +/-3 dB	
	S/N ratio	More than 50 dB at 3 % distortion level	
	Distortion	Less than 1.5 %(T.H.D at 1 kHz reference level)	
	Wow and flutter	Less than 0.2 %	
	Pickup device	3-chip 2/3-inch Power HAD IT CCD	
	Picture elements	811(H) x 508(V)	
	Optical system	F1.4 prism system	
	Built-in filters	1:CLEAR 2:5600 K + 1/8 ND 3:5600 K 4:5600K + 1/64 ND	
_	Shutter speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s)	
o	Lens mount	Special bayonet mount	
Section	Sensitivity (2000 lx with F8.0, 89.9 % reflective)	F10.0(Typical) Equivalent to ISO 600 or more	
Se	Minimum illumination	Approx. 0.15 lx(F1.4 lens, +48 dB Turbo Gain)	
ra	Smear level S/N ratio	-125 dB 65 dB (typical) 63 dB (typical)	
ne	Vertical resolution	65 dB (typical)	
Camera	Without EVS	400 TV lines 480 TV lines	
J	With EVS	450 TV lines 530 TV lines	
	Registration	0.05 % (All zones, without lens)	
	Geometric distortion	Below measurable level (Without lens)	
	Warm-up time	2 sec.	
	Modulation depth at 5 MHz	More than 55 %	
e	CRT	1.5-inch monochrome	
/iewfinder	Controls	BRIGHT control, CONTRAST control, PEAKING control, TALLY, ZEBRA, DIPLAY switches	
M	Horizontal resolution	600 TV lines	
ž	Microphone	Ultra-directional (Detachable)	

DVW-709WS(NTSC)/709WSP(PAL)

Digital BETACAM 16:9/4:3 Switchable One Piece Camcorder

·Superb picture and high sound quality of Digital BETACAM format •12-bit A/D converter •High performance ADSP (Advanced Digital Signal Processing)camcorder •Incorporates digital signal processing camera circuit with 3-chip 2/3-inch 16:9/4:3 Widescreen Power HAD 1000 IT CCD (with 520,000(NTSC)/620,000(PAL) picture elements) in the camera section and the Digital BETACAM recording technology in the VTR section to cover most quality conscious EFP applications •Multi Matrix Function for the color correction. •Turbo Gain feature which enables to raise the gain level to +48 dB •Auto Tracing White Balance for adjusting the white balance as lighting conditions change, •TruEve™ Process for faithful color reproduction Selectable Gamma Curve for more natural tonal reproduction. •Color Temperature Control which allows to change the color balance of the picture to make it warmer or colder. •Assignable Button for ATW, RET, REC, Turbo Gain and other functions •Setup Card system to store all the setup parameters made via the menu system from the camera head •Internal Light System powered from the camcorder's lithium-ion battery. •Stereo Audio Output from the 5-pin XLR connector. •Incorporates Optical Filter Wheels for ND(Neutral Density) and CC(Color Conversion). •Electronic Shutter Speeds: NTSC: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) PAL: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) •Super Innovative Clear Scan (NTSC: 60.1 to 7000Hz)(PAL:50.2 to 9000Hz) function for shooting computer displays •Enhanced Vertical Definition System (EVS) for vertical resolution of 450 (NTSC), 530 (PAL)TV lines •Shot Data Recording of the date and time of shooting, shot ID, cassette number and so on. •LCD panel showing a wide range of status and diagnostic displays. •Field playback capability of full color video and audio without an adaptor •Basic camera control from RM-150 Remote Control Unit •Compact and lightweight of approx.7kg including a viewfinder, battery, cassette, microphone and lens •Low power consumption of 31.5 W

Supplied accessories: Microphone (1)

high horizontal resolution of 600 TV lines

Microphone (1) Shoulder belt (1) Lens cap (1) XLR cap (4)

40 minutes of recording time using the S-cassetteVirtually no flare viewfinder with quick start CRT provides

Maintenance manual (1)
Operation manual (1)

BVF-V20W/V20WCE 2-inch 16:9 B/W Viewfinder (1)

Optional accessories:

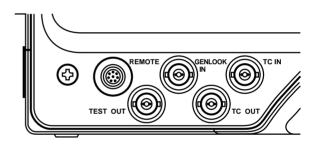
BKDW-701 Servo Filter Unit BKDW-702 SDI Output Board BKDW-703 Picture Cache Board CA-701 Camera Adapter CA-702/P Camera Adapter CA-755/P Camera Adapter AC-DN1 AC Adapter AC-DN2A AC Adapter BSC-1 Pack Setup Card

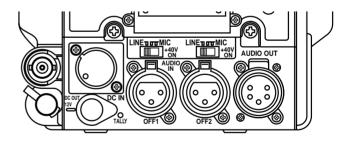
BVF-VC10W 1.35-inch 16:9 Color Viewfinder WRR-860A Wireless Microphone Receiver WRR-855A Wireless Microphone Receiver

(adaptor required)

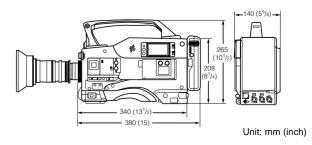








Dimensions



Spe	cifications	D) (14/ T00)4/0	DVIM ZOOMED	
	Mass	DVW-709WS	DVW-709WSP	
	Operating mass	Approx. 5.0 kg (11 lb. 1 oz) Approx. 7.0 kg (15 lb. 7 oz)		
	Power requirements		-5.0/-1.0 V	
<u>a</u>	Power consumption	31.5	5 W	
le l	Operating temperature	0 °C to +40 °C (+	32 °F to +104 °F)	
General	Storage temperature	-20 °C to +60 °C (
	Humidity	25 % to 85 % (r		
	Continuos operating time	Approx. 125 min Approx. 190 min		
	Caplack vides input	Approx. 190 min BNC(1), 1.0	· · · · · · · · · · · · · · · · · · ·	
Signal Inputs	Genlock video input Time code input	BNC(1), 1.0 BNC(1), 0.5 to		
d	Audio input (CH-1/2)	XLR 3-pin(2), -6		
<u>=</u>		selectable, high im	pedance, balanced	
g	Mic input	XLR 3-pin(2), -6	60 dBm/+4 dBm	
S		selectable, high im	•	
ts	Video output	BNC(1), 1.0		
큪	Video test output	BNC(1), 1.0 Vp-p, 75 Ω BNC(1), 1.0 Vp-p, 75 Ω		
<u>=</u>	Time code output			
Signal Outputs	Earphone Audio ouput (CH-1/2)	Mini YI R-5-pip n		
S	Lens	XLR-5-pin male(stereo)		
	Remote	12-pin 8-pin		
Others	Light	2-pin, DC 12		
Ę.	DC input	XLR 4-pin (for the opt		
0	DC output	4-pin (for wireless microp		
	Camcorder adapter	40-	pin	
	General			
	Recording format Tape speed	Digital Bl	ETACAM mm/s	
	Playback/Recording time	96.7r Max. 40 min. with		
	Fast forward time	Less than 6 min. with		
	Rewind time	Less than 5 min. wit		
	Recommended tape	Sony Digital Betacam S cassette,		
	Sampling Frequency		Y/B-Y: 6.75 MHz	
	Quantization		sample	
	Error correction Error concealment	Reed-Solomon code Adaptive three dimensional		
	Digital video performance	Adaptive tillet	e dimensional	
	Bandwidth	Y: 5.75 MHz +/-0.5 dB, R-	Y/B-Y: 2.75 MHz +/-0.5 dB	
_	S/N ratio		an 62 dB	
. <u>o</u>	k-factor(2T pulse)		an 1 %	
Section	Linearity	Less th		
	Y/R-Y/B-Y delay Digital audio performance	Less that	an 15 ns	
VTR	Sampling frequency	48 kHz (synchro	nized with video)	
>	Quantization	20 bits/sample		
	A/D and D/A quantization	16 bits/		
	Frequency response	20 Hz to 20 kHz		
	Dynamic range	More than 85 dB		
	Distortion (at 1 kHz, emphasis ON, reference level) Crosstalk (at 1 kHz, reference level)	Less that Less that		
	Wow and flutter			
	Head room	Below measurable limit 20 dB (ex-factory setting)		
	Emphasis (ON/OFF selectable)		T2=15 μs	
	Analog audio performance (Cue track)			
	Frequency response	100 Hz to 12 More than 50 dB at	! kHz +/-3 dB	
	S/N ratio Distortion	More than 50 dB at Less than 1.5 %(T.H.D a		
	Wow and flutter		an 0.2 %	
	Pickup device	3-chip 2/3-inch Widescreer		
	Picture elements	1038(H) x 504(V)	1038(H) x 594(V)	
	Optical system	F1.4 prisi		
	Built-in filters	1:CLEAR 2:1/4 ND 3		
	Chutter and od		C:4300 K D:6300 K	
	Shutter speed Lens mount	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s)	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) ronet mount	
on	Sensitivity (2000 lx with F8.0, 89.9 % reflective)		ent to ISO 500 or more	
Section	Minimum illumination	Approx. 0.2 lx(F1.4 len		
Se	Smear level	-120) dB	
ā	S/N ratio	65 dB (typical)	63 dB (typical)	
Camera	Vertical resolution	400 TV/ lines	400 TV/ lines	
Sa	Without EVS With EVS	400 TV lines 450 TV lines	480 TV lines 530 TV lines	
	Registration	450 TV lines 0.05 % (All zone		
	Geometric distortion	Below measurable		
	Warm-up time	2 s	,	
	Modulation depth at 5 MHz			
	16:9 Mode	More that		
	4:3 Mode	More that		
der	CRT	2.0-inch mo		
Viewfinder	Controls Horizontal resolution	BRIGHT control, CONTRAST control, PEAKII	NG control, TALLY, ZEBRA, DIPLAY switches nes (16:9)	
je.	Microphone	450 TV III Ultra-directiona		
>	MINIOPHONE	Onia-unections	ai (Dotabilabila)	

DVW-790WS(NTSC)/790WSP(PAL)

Digital BETACAM 16:9/4:3 Switchable One Piece Camcorder

•Superb picture and high sound quality of Digital BETACAM format •12-bit A/D converter •High performance ADSP (Advanced Digital Signal Processing)camcorder •Incorporates digital signal processing camera circuit with 3-chip 2/3-inch 16:9/4:3 Widescreen Power HAD 1000 FIT CCD (with 520,000(NTSC)/620,000(PAL) picture elements) in the camera section and the Digital BETACAM recording technology in the VTR section to cover most quality conscious EFP applications •Multi Matrix Function for the color correction. •Turbo Gain feature which enables to raise the gain level to +48 dB •Auto Tracing White Balance for adjusting the white balance as lighting conditions change, •TruEve™ Process for faithful color reproduction Selectable Gamma Curve for more natural tonal reproduction. •Color Temperature Control which allows to change the color balance of the picture to make it warmer or colder. •Assignable Button for ATW, RET, REC, Turbo Gain and other functions •Setup Card system to store all the setup parameters made via the menu system from the camera head •Internal Light System powered from the camcorder's lithium-ion battery. •Stereo Audio Output from the 5-pin XLR connector. •Incorporates Optical Filter Wheels for ND(Neutral Density) and CC(Color Conversion). •Electronic Shutter Speeds: NTSC: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) PAL: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) •Super Innovative Clear Scan (NTSC: 60.1 to 7000Hz)(PAL:50.2 to 9000Hz), Extended Clear Scan (ECS)(NTSC:30.4 to 58.3Hz)(PAL: 25.4 to 48.7Hz) function for shooting computer displays •Enhanced Vertical Definition System (EVS) for vertical resolution of 450 (NTSC), 530 (PAL)TV lines •Shot Data Recording of the date and time of shooting, shot ID, cassette number and so on. •LCD panel showing a wide range of status and diagnostic displays. •Field playback capability of full color video and audio without an adaptor •Basic camera control from RM-150 Remote Control Unit •Compact and lightweight of approx.7kg including a viewfinder, battery, cassette, microphone and lens •Low power consumption of 32 W •40 minutes of recording time using the S-cassette •Virtually no flare viewfinder with quick start CRT provides high horizontal resolution of 600 TV lines

Supplied accessories: Microphone (1)

Shoulder belt (1) Lens cap (1) XLR cap (4)

Maintenance manual (1) Operation manual (1)

BVF-V20W/V20WCE 2-inch 16:9 B/W Viewfinder (1)

Optional accessories:

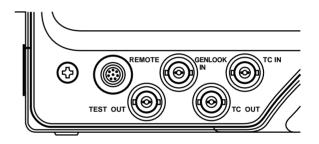
BKDW-701 Servo Filter Unit BKDW-702 SDI Output Board BKDW-703 Picture Cache Board CA-701 Camera Adapter CA-702/P Camera Adapter CA-755/P Camera Adapter AC-DN1 AC Adapter AC-DN2A AC Adapter BSC-1 Pack Setup Card

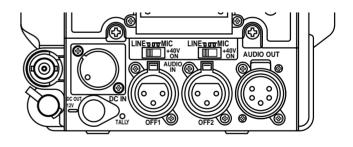
BVF-VC10W 1.35-inch 16:9 Color Viewfinder WRR-860A Wireless Microphone Receiver WRR-855A Wireless Microphone Receiver

(adaptor required)

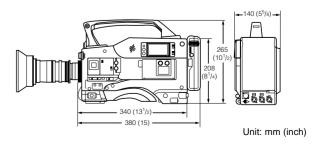








Dimensions



Specifications

Spe	cifications	DVW TOOMO	DVIN 700MCD		
	Mass	DVW-790WS Approx. 5.0 k	DVW-790WSP		
	Operating mass	Approx. 3.0 kg			
	Power requirements		-5.0/-1.0 V		
<u>a</u>	Power consumption		W		
General	Operating temperature	0 °C to +40 °C (+	32 °F to +104 °F)		
Ge	Storage temperature	-20 °C to +60 °C (
	Humidity	25 % to 85 % (r			
	Continuos operating time	Approx. 120 min Approx. 185 min			
	Contact video input	BNC(1), 1.0	` '		
Signal Inputs	Genlock video input Time code input	BNC(1), 1.0 BNC(1), 0.5 to			
g	Audio input (CH-1/2)	XLR 3-pin(2), -6			
<u>=</u>		selectable, high im	pedance, balanced		
g	Mic input	XLR 3-pin(2), -6	60 dBm/+4 dBm		
S		selectable, high im	•		
ts	Video output	BNC(1), 1.0			
큪	Video test output	BNC(1), 1.0			
<u>=</u>	Time code output	BNC(1),.1.0			
Signal Outputs	Earphone Audio ouput (CH-1/2)	Mini XLR-5-pin n			
S	Lens	·	pin		
	Remote		pin		
Others	Light	2-pin, DC 12			
ţ	DC input	XLR 4-pin (for the opt	tional AC-550/550CE)		
0	DC output	4-pin (for wireless microp			
	Camcorder adapter	40-	pin		
	General				
	Recording format Tape speed	Digital Bl	ETACAM mm/s		
	Playback/Recording time	96.7r Max. 40 min. with			
	Fast forward time	Less than 6 min. with			
	Rewind time	Less than 5 min. wit			
	Recommended tape	Sony Digital Betacam S cassette,			
	Sampling Frequency		Y/B-Y: 6.75 MHz		
	Quantization		sample		
	Error correction Error concealment	Reed-Solo Adaptive three			
	Digital video performance	Adaptive tillet	e dimensional		
	Bandwidth	Y: 5.75 MHz +/-0.5 dB, R-	Y/B-Y: 2.75 MHz +/-0.5 dB		
_	S/N ratio		an 62 dB		
Section	k-factor(2T pulse)	Less than 1 %			
둫	Linearity	Less than 2 %			
	Y/R-Y/B-Y delay Digital audio performance	Less that	an 15 ns		
VTR	Sampling frequency	48 kHz (synchronized with video)			
>	Quantization	48 KHz (synchronized with video) 20 bits/sample			
	A/D and D/A quantization	16 bits/			
	Frequency response	20 Hz to 20 kHz			
	Dynamic range	More than 85 dB			
	Distortion (at 1 kHz, emphasis ON, reference level) Crosstalk (at 1 kHz, reference level)	Less that Less that			
	Wow and flutter		surable limit		
	Head room	20 dB (ex-fac			
	Emphasis (ON/OFF selectable)		T2=15 µs		
	Analog audio performance (Cue track)				
	Frequency response		P. kHz +/-3 dB		
	S/N ratio Distortion	More than 50 dB at Less than 1.5 %(T.H.D a	3 % distortion level		
	Wow and flutter		an 0.2 %		
	Pickup device	3-chip 2/3-inch Widescreen			
	Picture elements	1038(H) x 504(V)	1038(H) x 594(V)		
	Optical system	F1.4 prisr	m system		
	Built-in filters	1:CLEAR 2:1/4 ND 3			
			C:4300 K D:6300 K		
	Shutter speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s)	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s)		
on	Lens mount Sensitivity (2000 lx with F8.0, 89.9 % reflective)		ronet mount ent to ISO 500 or more		
Section	Minimum illumination	Approx. 0.2 lx(F1.4 len			
Se	Smear level		O dB		
ā	S/N ratio	65 dB (typical)	63 dB (typical)		
Camera	Vertical resolution	100 77/ !!			
Sar	Without EVS	400 TV lines	480 TV lines		
	With EVS Registration	450 TV lines 0.05 % (All zone	530 TV lines		
	Geometric distortion	Below measurable			
	Warm-up time	2 s	,		
	Modulation depth at 5 MHz				
	16:9 Mode	More that			
	4:3 Mode	More that			
der	CRT	2.0-inch mo			
Viewfinder	Controls Harizontal recolution	BRIGHT control, CONTRAST control, PEAKII			
iew	Horizontal resolution Microphone	450 TV lines (16:9) Ultra-directional (Detachable)			
>	IMICIOPITOLIE	Ultra-difections	מו (שבומטומטוב)		

DVW-250(NTSC)/250P(PAL)

Digital BETACAM Portable VTR

 Superb Picture Quality of the Digital BETACAM Format •10-bit video and 20-bit audio A/D converter •Compact and lightweight (Approx. 7.7kg/16 lb 16 oz. including a BP-L60 battery and a BCT-D40 videocassette) •Low power consumption (Approx. 26W in Save Rec Mode) •Continuous operation for approx. two hours on one BP-L60 or BP-90A is possible •Automatic switching between external and internal batteries •Accept both L-size and S-size cassette •Full color video and audio confidence playback •Recognizable color picture can be monitored at up to ±8 times normal speed (2/5/8 times selectable) in SEARCH mode and at up to ±24 times normal speed in color in the FF/REW mode •Large LCD panel for audio and video level metering, channel condition, and menu setting indications •Accurate back space editing capability •Used in a simple editing system via its 9-pin remote control interface •Color freeze frame capability •Simple remote control from an optional BVR-3 Remote Controller

Versatile Inputs/Outputs

 $-SDI I/O (1 \times BNC IN) (1 \times BNC OUT)$

- -Camera Interface (26-pin) available for both analog and digital signal
- -Analog composite I/O (1 \times BNC IN) (1 \times BNC OUT) (1 \times BNC OUT with or without character superimposition)
- -Analog audio I/O (4 × XLR IN) (4 × XLR OUT)
- -RS-422A 9-pin remote interface switchable to RS-232C to allow connection to the Sony ISR (Interactive Status Reporting) system

Supplied Accessories: Operation Manual (1)

Maintenance Manual Part1 (1) Optional Accessories: Soft Carrying Case (BKDW-250) Remote Controller (BVR-3)

BVR-3 Connecting Cable (RCC-B5G/B10G/B30G) Lithium-ion Rechargeable Battery (BP-L60) Ni-Cd Rechargeable Battery (BP-90A)

Battery Charger for four BP-L60's (BC-L100/L100CE) Battery Charger for four BP-90A's (BC-410/410CE)

AC Adaptor (AC-550/550CE)

Connecting Cable (26-pin-26-pin) (CCZ-2/10)

RF Modulator (RFU-95UC/99E)

Specifications

General

Power requirements: DC 12V +5/-1 V

Power consumption: Approx. 26W (Save Rec.Mode, Confi.Off)

0°C to 40°C (32°F to 104°F) Operating temperature: -20°C to 60°C (-4°F to 140°F) Storage temperature: Humidity: 25% to 85% (relative humidity) Mass Approx. 6.6kg (14lb 8oz) Approx. 7.7kg (16lb 16oz) Operating mass: (Including BP-L60&BCT-D40)

Recording format: Digital BETACAM

Record/playback time: Max.124min (BCT-D124L) Max.40min (BCT-D40)

Fast forward/rewind time: 420 s or less (BCT-D124L) 150 s or less

(BCT-D40)

Fast forward/rewind Speed:

Max. 24 times (with color picture)

Max. 8 times (2/5/8 selectable) (with color picture) Search speed: 0.5 s or less (from Pause Mode)

Servo lock time:

Load/unload time: 4.0 s or less BP-L60, BP-90A Battery

Digital video performance

13.5MHz Sampling frequency: R-Y/B-Y: 6.75MHz Quantization: 10bits/sample

Digital input to analog component output: (Playback with standard playback machine)

0 to 5.75MHz±0.5dB Bandwidth: R-Y/B-Y: 0 to 2.75MHz±0.5dB

S/N ratio: 62dB or more

K-factor (2T pulse): 1% or less

Digital BETACAM





Analog component input to analog component output

(Playback with standard playback machine) Input A/D quantization: 10bits/sample

0 to 5.75MHz+0.5/-0.7dB Bandwidth: R-Y/B-Y: 0 to 2.75MHz+0.5/-0.7dB

S/N ratio: 60dB or more K-factor (2T pulse): 1% or less LF non-linearity: 2% or less

Analog composite input to analog composite output:

Input A/D quantization: 10bits/sample Bandwidth: 0 to 5.5MHz±0.7dB S/N ratio: 56dB or more Differential gain: 2% or less Differential phase: 2° or less Y/C delay: 15ns or less K-factor (2T pulse): 1% or less

Digital Audio Performance

(Playback with standard playback machine of 20bits D/A) Sampling frequency: 48kHz (synchronized with video)

Quantization: 20bits/sample Input A/D quantization: 20bits/sample 20Hz to 20kHz±0.5dB Frequency response:

Dynamic range: 100dB or more (at 1kHz,emphasis ON) Distortion: 0.03% or less (at 1kHz,emphasis ON) Cross talk -80dB or less (at 1kHz reference level)

Wow&Flutter: Below measurable limit

Headroom: 20dB (18dB)

T1=50µs / T2=15µs (ON/OFF selectable) Emphasis:

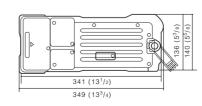
Processor Adjustment Range

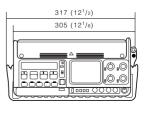
Video input & output level adjustable range:

+3dB

System sync phase: ±2µs

Dimensions





Unit: mm (inch)

DVW-A500 (NTSC)/**A500P** (PAL)

Digital BETACAM VTR with BETACAM/BETACAM SP Playback Compatibility

•Component digital recording •Four channels of 20-bit dynamic digital audio (18-bit A/D and D/A conversion)

Same size cassette tapes as current

BETACAM/BETACAM SP provides longer recording time; Large cassette (Max. 124 min), Small cassette (Max. 40 min) •BETACAM/BETACAM SP playback compatibility •Identical dimensions with current BETACAM SP studio VTRs allows easy installation into existing system including LMS and Flexicart multi-cassette systems •SDI(Serial Digital Interface) allows simple connection •Digital Jog Sound provides full recovery of digital audio even in the jog mode •Recognizable color pictures at shuttle speeds up to ±50 times normal speed •Dynamic Tracking (DT) playback within the range of -1 to +3 times normal playback speed •Program Play allows video recordings to be reproduced within the range of ±15% normal speed (Audio Program Play is also available with the optional BKDW-507 Audio Program Play board) •Preread editing capability •Digital Audio Crossfade for smooth audio transition in audio insert editing •Automatic Equalizer and Auto Edit Tracking allows adjustment free operation •Multi-loop test facility •Built-in signal generator •Versatile system interface; Serial digital video/audio, AES/EBU digital audio, analog component I/O, analog composite output (analog composite input is available with the BKDW-505/506 optional Decoder Board), RS-422A and RS-232C serial communication ports, video processor control port, parallel communication port (with the optional BKDW-509 Parallel (50P) Interface Kit)

Supplied accessories: AC power cord

RCC-5G 9-pin remote control cable PSW 4 × 16 screws for rack mounting

Operation manual Installation manual Maintenance manual

Analog composite decoder board (BKDW-505/506) Optional accessories:

Audio program play board (BKDW-507) Parallel (50P) interface kit (BKDW-509) Control panel (BKDW-515/514)

Control panel extension kit (cable and blank panel: BKDW-510/control panel case: BKDW-511)

Rack mount kit (RMM-110)

Specifications

General

Power requirements: AC 90V to 265V, 48Hz to 64Hz

Power consumption:

Operating temperature: +5°C to +40°C (41°F to +104°F) -20°C to +60°C (-4°F to +140°F) Storage temperature: Humidity: Less than 80% (relative humidity)

35 kg (77 lb) Dimensions:

427(W) × 237(H) × 542(D) mm including feet (167/8 × 93/8 × 213/8 inches) Recording format: Digital BETACAM Digital BETACAM: 96.7 mm/s Tape speed:

Batacam playback: 118.6 mm/s (DVW-A500),

101.5 mm/s (DVW-A500P)

Digital record/playback time:

Max. 124 min with BCT-D124L Analog playback time: Max 90 min with BCT-90MLA

Fast forward/rewind time:

Servo lock time:

Approx. 3 min with BCT-D124L

Search speed (Shuttle mode):

Still to approx. ±50 times normal playback speed

Dynamic tracking range (VAR mode):

-1 to +3 times normal playback speed 0.5 s or less (from standby on)

Load/unload time: 6 s or less

Digital BETACAM





Parallel I/F is optional

Digital Video

Sampling frequency: Y: 13.5MHz. R-Y/B-Y: 6.75MHz

Quantization: 10 bits/sample Digital input to analog component output:

Bandwidth: Y: 0 to 5.75MHz ±0.5dB R-Y/B-Y: 0 to 2.75MHz ±0.5dB

S/N ratio: 62dB or more K-factor (2T pulse): 1% or less

Analog component input to analog component output:

Input A/D quantization: 8 bits/sample

Bandwidth: Y: 0 to 5.75MHz +0.5/-0.7dB,

R-Y/B-Y: 0 to 2.75MHz +0.5/-0.7dB

S/N ratio: 56dB or more K-factor (2T pulse): 1% or less LF non-linearity: 2.5% or less

Digital Audio

Sampling frequency: 48kHz Quantization: 20 bits/sample

Analog input to output:

A/D and D/A quantization:

18 bits/sample

20Hz to 20kHz +0.5dB/-1.0dB (0dB at 1kHz) Frequency response: Dynamic range: More than 95dB (at 1kHz, emphasis ON) Less than 0.05% (at 1kHz, emphasis ON, Distortion:

reference level*)

Less than -80dB (at 1kHz, between Cross talk:

any two channels)

Wow & flutter: Below measurable level

Head room:

T1=50µs, T2=15µs (ON/OFF selectable) Emphasis:

Analog Audio (Cue track)

Frequency response: 100Hz to 12kHz +3dB

S/N ratio: More than 45dB (at 3% distortion level) Distortion: Less than 2% (T.H.D at 1kHz reference level*) Wow & flutter: Less than 0.2% (rms/DIN 45507 weighted)

*Reference level: +4dBm

DVW-500(NTSC)/500P(PAL)

Digital BETACAM VTR

•Component digital recording •Four channels of 20-bit dynamic digital audio (18-bit A/D and D/A conversion) Same size cassette tapes as current BETACAM/ BETACAM SP provides longer recording time: Large cassette (Max. 124 min), Small cassette (Max. 40 min) •Identical dimensions with current BETACAM SP studio VTRs allows easy installation into existing system including LMS and Flexicart multi-cassette systems •SDI(Serial Digital Interface) allows simple connection •Digital Jog Sound provides full recovery of digital audio even in the jog mode •Recognizable color pictures at shuttle speeds up to ∫50 times normal speed •Dynamic Tracking (DT) playback within the range of -1 to +3 times normal playback speed •Program Play allows video recordings to be reproduced within the range of f15% normal speed (Audio Program Play is also available with the optional BKDW-507 Audio Program Play board) •Preread editing capability •Digital Audio Cross fade for smooth audio transition in audio insert editing •Automatic Equalizer and Auto Edit Tracking allows adjustment free operation •Multi-loop test facility •Built-in signal generator •Versatile system interface; Serial digital video/audio, AES/EBU digital audio, analog component I/O, analog composite output (analog composite input is available with the BKDW-505/506 optional Decoder Board), RS-422A and RS-232C serial communication ports, video processor control port, parallel communication port (with the optional BKDW-509 Parallel (50P) Interface Kit)

Supplied accessories: AC power cord

RCC-5G 9-pin remote control cable PSW 4 x 16 screws for rack mounting

Operation manual Installation manual Maintenance manual

Optional accessories: Analog composite decoder board (BKDW-505/506)

Audio program play board (BKDW-507) Parallel (50P) interface kit (BKDW-509) Control panel (BKDW-515/514)

Control panel extension kit (cable and blank panel: BKDW-510/control panel case: BKDW-511)

Rack mount kit (RMM-110)

Specifications

General

Power requirements: AC 90V to 265V, 48Hz to 64Hz

Power consumption: 220W

Operating temperature: +5°C to +40°C (41°F to +104°F)
Storage temperature: -20°C to +60°C (-4°F to +140°F)
Humidity: Less than 80% (relative humidity)

Mass: 33 kg (73 lb)

Dimensions: $427(W) \times 237(H) \times 542(D) \text{ mm}$ including feet $(16\% \times 9\% \times 21\% \text{ inches})$ Recording format: Digital BETACAM

Tape speed: 96.7 mm/s
Digital record/playback time:

Max. 124 min with BCT-D124L

Fast forward/rewind time:

Approx. 3 min with BCT-D124L

Search speed (Shuttle mode):

Still to approx. ±50 times normal playback speed

Dynamic tracking range (VAR mode):

-1 to +3 times normal playback speed

Servo lock time: 0.5 s or less (from standby on)
Load/unload time: 6 s or less

Digital Video

Sampling frequency: Y: 13.5MHz, R-Y/B-Y: 6.75MHz

Quantization: 10 bits/sample
Digital input to analog component output:

Bandwidth: Y: 0 to 5.75MHz ±0.5dB R-Y/B-Y:0 to 2.75MHz ±0.5dB

S/N ratio: 62dB or more K-factor (2T pulse): 1% or less







Parallel I/F is optional

Analog component input to analog component output:

Input A/D quantization: 8 bits/sample

Bandwidth: Y: 0 to 5.75MHz +0.5/-0.7dB, R-Y/B-Y:0 to 2.75MHz +0.5/-0.7dB

S/N ratio: 56dB or more K-factor (2T pulse): 1% or less LF non-linearity: 2.5% or less

Digital Audio

Sampling frequency: 48kHz
Quantization: 20 bits/sample

Analog input to output: A/D and D/A quantization:

18 bits/sample

Frequency response: 20Hz to 20kHz +0.5dB/-1.0dB (0dB at 1kHz)

Dynamic range: More than 95dB (at 1kHz, emphasis ON)

Less than 0.05% (at 1kHz, emphasis ON,

reference level*)

Cross talk: Less than –80dB (at 1kHz, between any two

channels)

Wow & flutter: Below measurable level

Head room: 20dB

Emphasis: T1=50µs, T2=15µs (ON/OFF selectable)

Analog Audio (Cue track)

Frequency response: 100Hz to 12kHz ±3dB

S/N ratio: More than 45dB (at 3% distortion level)
Distortion: Less than 2% (T.H.D at 1kHz reference level*)
Wow & flutter: Less than 0.2% (rms/DIN 45507 weighted)

*Reference level: +4dBm

DVW-A500/1(NTSC)

Digital BETACAM VTR with Advanced Control Panel

•Built-in EL display for basic menu setting without an external monitor •8 sets of VTR setup parameters and 800 cue points can be stored with the memory card (PCMCIA: SRAM)

Other features and specifications of each models are same as the models Other features and specifications of each models are same as a without "/1". See previous P21, 22 DVW-A500/A500P/500/500P Supplied Accessories: AC power code (1) PCMCIA:SRAM Memory card (1)

RCC-5G 9-pin remote control cable (1) PSW 4 x 16 Screws for rack mounting (4)

Operation manual (1) Installation manual (1) Maintenance manual Part 1 (1)
Maintenance manual (BKDW-515) (1)





DVW-A500/1



DVW-A510(NTSC)/A510P(PAL)

Digital BETACAM Player with

BETACAM/BETACAM SP Playback Compatibility

•Component digital recording •Four channels of 20-bit dynamic digital audio (18-bit D/A conversion) •Same size cassette tapes as current BETACAM/BETACAM SP provides longer playback time; Large cassette (Max. 124 min), Small cassette (Max. 40 min) •BETACAM/BETACAM SP playback compatibility •Identical dimensions with current BETACAM SP studio VTRs allows easy installation into existing system including LMS and Flexicart multicassette systems •SDI(Serial Digital Interface) allows simple connection •Digital Jog Sound provides full recovery of digital audio even in the jog mode •Recognizable color pictures at shuttle speeds up to (50 times normal speed •Dynamic Tracking (DT) playback within the range of −1 to +3 times normal playback speed •Program Play allows video recordings to be reproduced within the range of ±15% normal speed (Audio Program Play is also available with the optional BKDW-507 Audio Program Play board) Automatic Equalizer allows adjustment free operation

•Built-in signal generator •Versatile system interface; Serial digital video/audio, AES/EBU digital audio, analog component, analog composite outputs, RS-422A and RS-232C serial communication ports, video processor control port, parallel communication port (with the optional BKDW-509 Parallel (50P) Interface Kit)

Supplied accessories: AC power cord

RCC-5G 9-pin remote control cable PSW 4 x 16 screws for rack mounting

Operation manual Installation manual Maintenance manual

Optional accessories: Audio program play board (BKDW-507)

Parallel (50P) interface kit (BKDW-509) Control panel extension kit (cable and blank panel:

BKDW-510/control panel case: BKDW-511) Rack mount kit (RMM-110)

Specifications

General

Power requirements: AC 90V to 265V, 48Hz to 64Hz

Power consumption: 175W

Operating temperature: $+5^{\circ}$ C to $+40^{\circ}$ C (41°F to $+104^{\circ}$ F) Storage temperature: -20° C to $+60^{\circ}$ C (-4° F to $+140^{\circ}$ F) Humidity: Less than 80% (relative humidity)

Mass: 34 kg (75 lb)

| Dimensions: | 427(W) × 237(H) × 542(D) mm | including feet | (16% × 9% × 21% inches) | Format: | Digital BETACAM |

Tape speed: Digital BETACAM: 96.7 mm/s

Batacam playback: 118.6 mm/s (DVW-A510),

101.5 mm/s (DVW-A510P)

Digital playback time: Max. 124 min with BCT-D124L Analog playback time: Max. 90 min with BCT-90MLA

Fast forward/rewind time:

Approx. 3 min with BCT-D124L

Search speed (Shuttle mode):

Still to approx. ±50 times normal playback speed

Dynamic tracking range (VAR mode):

-1 to +3 times normal playback speed 0.5 s or less (from standby on)

Servo lock time: 0.5 s or less Load/unload time: 6 s or less

Digital Video

Sampling frequency: Y: 13.5MHz, R-Y/B-Y: 6.75MHz

Quantization: 10 bits/sample

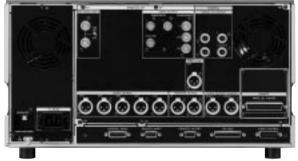
Analog component output:

Bandwidth: Y: 0 to 5.75MHz ±0.5, R-Y/B-Y:0 to 2.75MHz ±0.5

S/N ratio: 62dB or more K-factor (2T pulse): 1% or less







Parallel I/F is optional

Digital Audio

Sampling frequency: 48kHz Quantization: 20 bits/sample D/A quantization: 18 bits/sample

Frequency response: 20Hz to 20kHz +0.5dB/-1.0dB (0dB at 1kHz)
Dynamic range: More than 95dB (at 1kHz, emphasis ON)
Less than 0.05% (at 1kHz, emphasis ON,

reference level*)

Cross talk: Less than -80dB (at 1kHz, between any two

channels)

Wow & flutter: Below measurable level

Head room: 20dB

Emphasis: T1=50µs, T2=15µs (ON/OFF automatic selection)

Analog Audio (Cue track)

Frequency response: 100Hz to 12kHz ±3dB

S/N ratio: More than 45dB (at 3% distortion level)
Distortion: Less than 2% (T.H.D at 1kHz reference level*)
Wow & flutter: Less than 0.2% (rms/DIN 45507 weighted)

*Reference level: +4dBn

DVW-510 (NTSC)/510P (PAL)

Digital BETACAM Player

•Component digital recording •Four channels of 20-bit dynamic digital audio (18-bit D/A conversion) •Same size cassette tapes as current BETACAM/BETACAM SP provides longer playback time: Large cassette (Max. 124 min), Small cassette (Max. 40 min) •Identical dimensions with current BETACAM SP studio VTRs allows easy installation into existing system including LMS and Flexicart multi-cassette systems •SDI(Serial Digital Interface) allows simple connection •Digital Jog Sound provides full recovery of digital audio even in the jog mode •Recognizable color pictures at shuttle speeds up to ±50 times normal speed •Dynamic Tracking (DT) playback within the range of -1 to +3 times normal playback speed •Program Play allows video recordings to be reproduced within the range of ±15% normal speed (Audio Program Play is also available with the optional BKDW-507 Audio Program Play board) •Automatic Equalizer allows adjustment free operation •Built-in signal generator •Versatile system interface; Serial digital video/audio, AES/EBU digital audio, analog component, analog composite outputs, RS-422A and RS-232C serial communication ports, video processor control port, parallel communication port (with the optional BKDW-509 Parallel (50P) Interface Kit)

Supplied accessories: AC power cord

RCC-5G 9-pin remote control cable PSW 4 x 16 screws for rack mounting

Operation manual Installation manual Maintenance manual

Optional accessories: Audio program play board (BKDW-507)

Parallel (50P) interface kit (BKDW-509)

Control panel extension kit (cable and blank panel: BKDW-510/control panel case: BKDW-511)

Rack mount kit (RMM-110)

Specifications

General

Power requirements: AC 90V to 265V, 48Hz to 64Hz

Power consumption: 140W

Operating temperature: $+5^{\circ}$ C to $+40^{\circ}$ C (41° F to $+104^{\circ}$ F) Storage temperature: -20° C to $+60^{\circ}$ C (-4° F to $+140^{\circ}$ F) Humidity: Less than 80% (relative humidity)

Mass: 32 kg (71 lb)

Dimensions: $427(W) \times 237(H) \times 542(D)$ mm including feet $(16\% \times 9\% \times 21\% \text{ inches})$ Format: Digital BETACAM

Format: Digital BETACAN

Digital playback time: Max. 124 min with BCT-D124L Fast forward/rewind time:

rast lotward/rewilld time.

Approx. 3 min with BCT-D124L

Search speed (Shuttle mode):

Still to approx. ±50 times normal playback speed

Dynamic tracking range (VAR mode):

-1 to +3 times normal playback speed0.5 s or less (from standby on)

Servo lock time: 0.5 s or less (Load/unload time: 6 s or less

Digital Video

Sampling frequency: Y: 13.5MHz, R-Y/B-Y: 6.75MHz

Quantization: 10 bits/sample

Analog component output:

Bandwidth: Y: 0 to 5.75MHz ±0.5, R-Y/B-Y:0 to 2.75MHz ±0.5

S/N ratio: 62dB or mor K-factor (2T pulse): 1% or less

Digital Audio

Sampling frequency: 48kHz
Quantization: 20 bits/sample
D/A quantization: 18 bits/sample

Frequency response: 20Hz to 20kHz +0.5dB/-1.0dB (0dB at 1kHz)

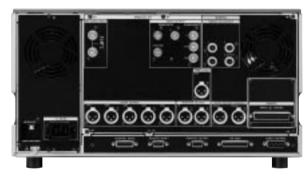
Dynamic range: More than 95dB (at 1kHz, emphasis ON)

Distortion: Less than 0.05% (at 1kHz, emphasis ON,

reference level*)







Parallel I/F is optional

Cross talk: Less than -80dB (at 1kHz, between any two

channels)

Wow & flutter: Below measurable level

Head room: 20dB

Emphasis: T1=50µs, T2=15µs (ON/OFF automatic selection)

Analog Audio (Cue track)

Frequency response: 100Hz to 12kHz ±3dB

S/N ratio: More than 45dB (at 3% distortion level)
Distortion: Less than 2% (T.H.D at 1kHz reference level*)
Wow & flutter: Less than 0.2% (rms/DIN 45507 weighted)

*Reference level: +4dBm

DVW-522(NTSC)/**DVW-522P**(PAL)

Digital BETACAM Player

•Picture and sound quality of Digital BETACAM format
•Playback time greater than 124 minutes using L-size
Digital BETACAM cassette •Two way dial control of JOG
and Shuttle modes •High-speed picture search provides
recognizable color picture at up to ±50 times normal
playback speed •Dynamic Tracking playback delivers high
quality picture over the range of -1 to +3 times normal
playback speed •Setup menus are provided for basic
operational parameters and to monitor operating hours
meters •Using the optional RF adaptor, pictures and audio
can be monitored using a conventional television receiver
•LTC, VITC, CTL and User Bit information may be
superimposed on the playback picture via either VIDEO
output or RF output •Detachable control panel for remote
operation from the distance of up to 10 meters (30feet)

Supplied accessories: Power cord(1)

•19-inch rack mountable

PSW4 × 16 screws for rack mounting(4)

Operation manual(1)

Installation/ Maintenance manual(1)

Optional accessories: Control panel extension kit

(cable and blank panel)BKDW-510 Control panel case BKDW-511 Rack mount adaptor RMM-110 Cleaning cassette tape BCT-D12CL TV RF adaptor RFU-95UC/RFU-99E

Specifications

General

Power requirements: AC 90V to 256V, 48Hz to 64Hz Power consumption: 150VA (105W)

Operating temperature: +5°C to +40°C(41°F to 104°F)
Storage temperature: -20°C to +60°C(-4°F to 140°F)
Humidity: 25 to 80% (relative humidity)

Mass: 31kg (69 lb)

Dimensions: $427(W) \times 237(H) \times 542(D)$ mm including feet $(16\% \times 9\% \times 21\% \text{ inches})$

Tape speed: 96.7mm/s

Playback time: 124min with BCT-D124L cassette

40min with BCT-D40 cassette Fast forward/Rewind time:

Approx. 3min with BCT-D124L cassette

Search speed

SHUTTLE: Still to approx. ±50 times normal play speed

VAR: -1 to +3 times normal play speed
Dynamic Tracking range: -1 to +3 times normal play speed
Servo lock time: 0.5s or less (from standby on)

Load/unload time: 6.0s or less

Signal outputs

Analog composite: BNC (2 including 1 for character superimposition)

1.0 Vp-p, 75Ω , sync negative Audio monitor(L/R): XLR, 3-pin, male (2)

+4dBm at 600Ω load, low impedance, balanced

Headphones: JM-60 stereo phone jack

 $-\infty$ to -12dBU at 8kΩ, unbalanced RFU video: PIN JACK, 1.0Vp-p, 75Ω, sync negative RFU audio monitor: PIN JACK, -10dBu at 47kΩ, unbalanced

RFU DC: ø2.5 JACK, +5Vdc/GND

Others

Control panel: D-sub 15-pin, female RS-232C: D-sub 25-pin, female

Video/Audio performance Analog composite output

Bandwidth: Y: 0 to 5.0MHz +0.5/–2.0dB

S/N ratio: 54dB or more Differential gain: 3% or less Differential phase: 3° or less Y/C delay: 20ns or less K factor(2T Pulse): 1.5% or less Monitor out (Digital Audio)

Frequency response: 20Hz to 20kHz +0.5dB/1.0dB (0dB at 1kHz) Dynamic range: More than 85dB (at 1kHz, emphasis ON)

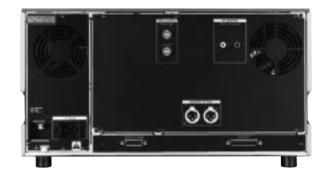
Distortion: Less than 0.089

(at 1kHz, emphasis ON, reference level)
Crosstalk: Less than –70dB (at 1kHz, between any two

channels)







Monitor out (Cue)

Frequency response: 100Hz to 12kHz ±3dB (at 20dB below peak level)

S/N ratio: More than 45dB (at 3% distortion level)
Distortion: Less than 2% (T.H.D at 1kHz, reference level)

Wow and flutter: Less than 0.2% rms

CA-755(NTSC)/CA-755P(PAL)

Triax CCU Adaptor for DVW-707/709WS/790WS series and DNW-7/9WS/90/90WS series

•Provides an interface with the Sony Camera Command System so as to achieve the benefits of high-speed, real-time control and instant tactile response •Furnished with a triax cable interface for use with the CCU-550/700A series Camera Control Unit •High picture quality •Direct connection with the camcorder via the camcorder's built-in 40-pin connector •Long signal transmission capability of up to 600m of Ø8.5mm and 1200m of Ø14.5mm triax cable •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Compact and lightweight of 1.9kg (4 lb 3 OZ)

Supplied accessories Operation manual (1)

Maintenance manual (1)

Cable clamp (1)

M3/M4 screws for cable clamp (2 x 2)

Specification

General

Power consumption: Approx. 13W Mass: 1.9kg (4 lbs 3 oz)

Input/output connectors

DC IN: XLR-4-pin type, 11.5V to 17V RET OUT: BNC-type, 1.0Vp-p, 75Ω

RETURN CONTROL: 6-pin

EARPHONE: MİNI-JACK, 8Ω

CAMERA: 40-pin (DVW-700/700WS series, DNW-7/9WS/90/90WS series)

CCU: (PAL) Fischer type triax connectors (1) (NTSC) Kings type triax connectors (1)

INCOM/PGM: Headset XLR-5-pin type



CA-701(NTSC/PAL)

Camcorder Adaptor for DVW-707/709WS/790WS series. DNW-7/9WS/90/90WS series and DNV-5

•4-channel audio recording capability •Access to audio channels 3 and 4 via connectors (XLR × 2) •Microphone phantom power •Independent input level control and metering for channels 3 and 4 •Two SDI output (BNC × 2) •Compact and light weight with low power consumption •Versatile audio monitoring •Direct connection to the camcorder via the camcorder's built-in 40-pin connector •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Flexible power connections

Supplied accessories: Operation manual (1)

Maintenance manual (1)

Optional accessories: BC-155 expansion board

BP-L60, BP-L90 battery pack DC-L1, DC-L90 battery adaptor

WRR-860A UHF synthesized diversity tuner

AC-550/550CE AC adapor BVF-55/55CE 5-inch viewfinder

Rain-proof cover (Part No.3-188-446-01)

Specification

General

Power requirement: Approx. DC12V + 5.0/-1.0V

Power consumption: Approx. 7W

Operating temperature:
Storage temperature:
Humidity:
Mass:
OC to +40°C (+32°F to +104°F)
-20°C to +60°C (-4°F to +104°F)
25% to 85%(relative humidity)
Approx. 1.0kg (2 lb 3 oz)

Input/output connectors

AUDIO IN CH-3/4: XLR-3-31 type (female) (2)

(-60dBu/+4dBu, 0 dBu equals 0.775 Vrms)

AUDIO OUT: XLR-5-pin type, male (stereo)

DC IN: XLR-4-pin type, male, 11 to 17 V

DC OUT: 4-pin, 11 to 17 V, maximum current 0.1 A

SDI OUT: BNC type \times 2, 0.8 Vp-p, 75 Ω

CAMERA: 40-pin



CA-702(NTSC)/702P(PAL)

Camcorder Adaptor for DVW-707/709WS/790WS series. DNW-7/9WS/90/90WS series and DNV-5

•External SDI or analog composite input signal recording capability •SDI or analog component signal output capability via a CCZ 26-pin connector •SDI or analog composite output via a BNC connector •Compact and light weight with low power consumption •Direct connection to the camcorder via the camcorder's built-in 40-pin connector •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Flexible power connections

Supplied accessories: Operation manual (1)

Maintenance manual (1) BC-155 expansion board

Optional accessories: BP-L60, BP-L90 battery pack DC-L1, DC-L90 battery adaptor

WRR-860A UHF synthesized diversity tuner

AC-550/550CE AC adapor BVF-55/55CE 5-inch viewfinder

Rain-proof cover (Part No.3-188-446-01)

Specification

General

Power consumption: MAX. 5.5W Approx. 0.9kg (2lb) 165(w) × 195.5(H) × 65(D) mm Mass:

Dimensions:

Input/output connectors

DC IN: DC OUT: XLR-4-pin type, male

4-pin

SDI/Composite IN: BNC type (1) BNC type (1) SDI OUT: CAMERA: 40-pin VTR: CCZ-26-pin



BKDW-508

Audio Multi-channel Adaptor (NTSC/PAL)

•Preparation and transmission of multi-lingual materials are available from Digital Betacam VTR in combination use with the BKDW-508 •8-channel Audio Recording

•Record/Playback of up to 16 Channels with a single digital 4-track tape and two BKDW-508 units •Sony 9-pin interface

•Bypass Mode for Standard Audio •Comprehensive monitoring via an 8-bargraph meter •8 digital audio inputs and outputs and 8 analog inputs and outputs •Clock Generation capability •Record/Playback Level Controls (-60dBu to +12dBu) •525(NTSC)/625(PAL) operation

Supplied accessories: Operation manual (1)

Installation and maintenance manual (Part 1) (1)

Rack mounting kit (1)

Optional accessories: PCB extender board

Specifications

Power requirement: 90 to 265V AC, 48 to 64Hz

Power consumption: 110W (220VA) Operating temperature: 5 to 40°C (41 to 104°F) 10% to 90% (non-condensing) Humidity Dimensions: Approx. $424(W) \times 130(H) \times 520(D)$ mm

 $(16^{3/4} \times 5^{1/8} \times 20^{1/2})$ inches) Approx. 15 kg (33 lb 1 oz) Mass

Audio characteristics

Compression/expansion: Sub-band ADPCM

Channels: 8 channels Sampling frequency: 48kHz 16 bits Quantization:

Frequency response: 20Hz to 20kHz +0.5/-1.0dB

(1kHz nominal level +4dBu

More than 85dB Dynamic range:

20dB (18dB, 12dB selectable) Headroom:

+4dBu Operating level: Less than 4ms Delay time

(ENCODE + DECODE) THD and noise: Less than 0.1%

(at 1kHz nominal level +4dBu)

Cross talk: Less than -80dB

(all channels hostile at 1kHz, level +24dBu)

Audio In/Out

Digital input: XLR 3-pin (4), ABS/EBU stero pair, balance (via 1, 3, 5, and 7)

Digital output: XLR 3-pin (4), ABS/EBU stero pair, balance (via 1, 3, 5, and 7)

Analog input: XLR 3-pin (8), 600Ω/high impedance,

selectable, balanced

Analog output: XLR 3-pin (8), less than 50Ω, balanced XLR 3-pin, high impedance, balanced Monitor input: Monitor output: XLR 3-pin, less than 50Ω, balanced

Multiplex input: XLR 3-pin, compressed digital audio, balanced XLR 3-pin, compressed digital audio, balanced Multiplex output:

Headphone: Standard phone jack, mono signal

Note: The input connectors 1, 3, 5, and 7 are switchable between the analog and digital inputs.

Remote

D-sub 9-pin Editor input: VTR output: D-sub 9-pin D-sub 9-pin GPI outpuit:

Reference

Video Ref In: BNC × 2. loop-through





BSC-1-Pack

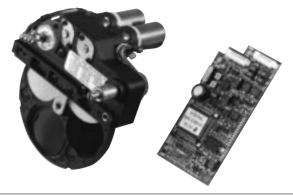
Setup Card for the DVW-707/709WS/790WS/ BVW-D600 and DNW-7/9WS/90/90WS Series Camcorders

Package of four Setup Cards and soft case



BKDW-701

Servo Filter Unit for DVW-709WS/790WS/ BVW-D600 Series Camcorders



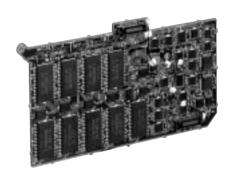
BKDW-702

SDI Output Board for DVW-707/709WS/790WS Series Camcorders



BKDW-703

Picture Cache Board for DVW-707/709WS/790WS Series Camcorders



BKDW-515

Control Panel for the Digital BETACAM DVW-A500/A500P/500/500P



BKDW-514

Control Panel for the Digital BETACAM VTRs



BKDW-510/511

Control Panel Extension Kit (cable and blank panel: BKDW-510) (control panel case: BKDW-511)



BKDW-509

Parallel (50P) Interface Kit for the DVW-A500/ 500/A510/510 Series



BKDW-507

Audio Program Play Board for the DVW-A500/ 500/A510/510 Series



BKDW-505 (NTSC)/506 (PAL)

Analog Composite Decoder Board for the DVW-A500/500 Series



BKDW-250

Soft Carrying Case for DVW-250/250P



RMM-110

Rack Mount Kit

• Designed for use in mounting DVW series VTRs into 19-inch rack



LC-777

Carrying Case for DVW-707/709WS/790WS Series **Camcorders**

*The LC-777 is not available in some areas



BCT-D6/D12/D22/D32/D40 BCT-D34L/D64L/D94L/D124L

BCT-D Series Digital BETACAM Tapes

Model	Tape length m (ft)	Playing time (min)	Mass* g (lb)
BCT-D6	43 (141)	6	260 (0.57)
BCT-D12	78 (256)	12	270 (0.59)
BCT-D22	136 (446)	22	277 (0.61)
BCT-D32	195 (640)	32	295 (0.65)
BCT-D40	241 (791)	40	308 (0.68)
BCT-D34L	206 (676)	34	630 (1.39)
BCT-D64L	382 (1253)	64	677 (1.49)
BCT-D94L	557 (1827)	94	728 (1.60)
BCT-D124L	732 (2402)	124	780 (1.72)

*with case



DIGITAL BET

5 Digital BETACAM Camcorders/VTRs

BCT-D12CL

Head Cleaning Videocassette Tape for Digital BETACAM VTRs





BVW-D600/D600P	8
BVV-5/5PS	90
BVW-50/50P	92
BVW-75/75P	94
BVX-10/10P	96
BVR-75A	96
BVR-50/50P	97
VA-5/5P	97
VA-500/500P	98
BVR-3	98
WRR-860A	99
WRR-855A	99
WRR-810A	99
BK-7503PS/7504PS	99
BK-75A	99
BKW-401	100
BKW-402A	100
BKW-L601	100
RMM-100	100
LC-201	100
BKP-L551	101
BCT-5G/10G/20G/30G	101
BCT-5GL/30GL/60GL/90GL	101
BCT-5MA/10MA/20MA/30MA	101
BCT-5MLA/10MLA/20MLA/30MLA/	
60MLA/90MLA	
BCT-5CLN	102

BVW-D600(NTSC)/**D600P**(PAL)

Betacam SP One Piece Camcorder

 High performance DSP (Digital Signal Processing) camcorder • Incorporates digital signal processing camera circuit with 3-chip 2/3-inch Hyper HAD 1000 FIT CCD (with 520,000(NTSC), 620,000(PAL) picture elements) in the camera section and the Betacam SP recording technology in the VTR section to cover ENG to the most quality conscious EFP applications •10-bit/36MHz full digital signal processing camera circuit which provides superb picture quality and great advantages for camera setup •Setup Card system to store all the setup parameters made via the menu system from the camera head •Two-level menu control for User and Engineer •Accurate Auto White Shading and Auto Black Shading compensation •Basic camera control from the RM-P9 Remote Control Unit •Extremely high sensitivity of F8.0 at 2000 lx •Compact and lightweight of approx. 7.0kg (15 lb 7 oz)with VF, NP-1B battery, cassette, lens and microphone •Low power consumption (25W) •Up to 60 minutes of operation with a NP-1B •Dual Optical Filter of ND (Neutral Density) and CC (Color Conversion) filters •26-pin VTR capability with the optional BKW-402A VTR Connection Unit for parallel component recording with external VTR •Variable electronic shutter for shooting high speed moving objects Shutter speed:

BVW-D600: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(s) BVW-D600P: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000(s)

•Super Innovative Clear Scan (NTSC:60.1 to 7000Hz)(PAL: 50.2 to 9000Hz)/Extended Clear Scan (ECS)(NTSC:30.4 to 58.3Hz)(PAL: 25.4 to 48.7Hz) function for shooting computer displays •Enhanced Vertical Definition System (Super EVS) for the vertical resolution of 450(NTSC), 530(PAL) TV lines •Full color genlock capability •High horizontal resolution and low flare viewfinder with quick start CRT

- Programmable character indication on the CRT
- Viewfinder rotation function with the optional BKW-401 Viewfinder Rotation Bracket
- •Two AFM audio channels with the Dolby C-Type NR(Noise Reduction) system •Audio confidence playback (longitudinal) •Viewfinder playback (luminance or CTDM selectable) •Color playback in the field with the optional VA-500 Playback Adaptor •Recording review function •Built-in LTC/VITC/User's Bit generator and LTC reader with external time code lock capability •Frame accurate back space editing •8-digit LCD display •Bar graph meter for audio level and battery status •Built-in loudspeaker •External microphone power supply (+ 48V, CH-1/2) •External DC OUT for Sony wireless microphone receiver •High reliability and easy maintenance with warning and detailed diagnostics information in the viewfinder •With the Battery Adaptor BKW-L601, newly developed Lithium-ion Battery (BP-L60/BP-L90) can be used. Provides

BP-L60, 210 minutes with a BP-L90. Supplied Accessories: Setup card BCS-1(1)

Tripod Adaptor VCT-14(1) 50-pin Extention board EX-148(1) 100-pin Extention board EX-408(1)

Rain Cover(1)
Shoulder belt(1)
Operation Manual(1)
Maintenance Manual(1)
Microphone(1)

continuous operating time of up to 135 minutes with a

Carrying case (LC-201)(PAL only) (1)

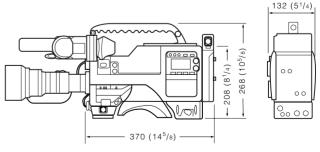
BETACAM SP







Dimensions



Unit: mm (inch)

Specifications

		RVW	-D600	BVW-I	D600P	
	Mass		Approx. 7.0kg(15 lb 7 oz) with VF			
	Power requirements		DC 12V +		account and forto	
ā	Power consumption		25W (with			
General	Operating temperature		0° to 40°C (33	· · · · · · · · · · · · · · · · · · ·		
ge	Storage temperature		-20° to 60°C (-			
	Humidity		Less that	, , , , , , , , , , , , , , , , , , ,		
	Continuous operating time (with NP-1B)		Approx.			
			· ·			
	Pickup Device		3CCD ² / ₃ -inch Hyper			
	Picture elements Total	1038 (H)	× 504 (V)	1038 (H)	× 594 (V)	
	Optical system		F1.4 prisr			
	Built-in filters		A:CROSS B:3200K			
			1:CLEAR 2:1/4ND 3			
	Shutter speed		500, ½1000, ½2000(s)	1/60, 1/125, 1/250, 1/5		
	Clear Scan CLS	60.1 to 7000H		50.2 to 9000Hz (310 steps)		
ڌ	ECS	30.4 to 58.3H		25.4 to 48.7H	iz (295 steps)	
뜴	Lens mount		Special bay			
Camera Section	Video output	1.0Vp-p, 75Ω, sync negative, two outputs (one is TEST OUT)				
,	Connectors Lens Remote		12- 6-r			
ner			2000l× with F8.0,			
ä	Sensitivity Minimum illumination		Approx. 1.9 l× (F1.4			
0	Video signal-to-noise ratio (typical)	60	Approx. 1.9 i× (F1.2	1 lens, +300B gain) 60	4D	
	Modulation depth at 5MHz	02	70% (Typical)(from VII		шь	
	Vertical resolution(without Super EVS)	4007	/ lines	450T\	/ lines	
	(wtih Super EVS)		/ lines	530T\		
		4301	0.05% (all zone		/ IIIIes	
	Registration Geometric distortion		Below measurable	·		
	Warm up time			S		
Section	Tape Speed		mm/s		imm/s	
₩	Playback/ Recording time	More than 30 mi		More than 35 mir	n with BCT-30MA	
Se	Fast Forward time		Less than 9 min			
	Rewind time		Less than 5 min	with BCT-30MA		
	GENLOCK IN (BNC)		1.0Vp-			
ıts	TIME CODE IN (BNC)		0.5V to 18			
Inputs/Outputs	AUDIO IN CH-1/2 (XLR 3-pin)		-60dB/+4dBu selectable, l	<u> </u>		
	TIME CODE OUT (BNC)			p, 75Ω		
ts/Out	EARPHONE OUT		Mini	,		
nd	PLAYBACK ADAPTOR	20-pin				
드	DC IN		XLR 4-pin (for the optio			
	DC OUT					
	B0 001		4-pin (for wireless micropno	ne) DC 11 to 17V, 0.1A max		
	20 001	Metal Particle Tape:	Oxide Particle Tape:	ne) DC 11 to 17V, 0.1A max Metal Particle Tape:	Oxide Particle Tape:	
	Bandwidth	•	Oxide Particle Tape:	Metal Particle Tape:		
	Bandwidth Luminance (50% modulation)	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB	Metal Particle Tape: 25Hz to 5.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4MHz ^{+0.5} _{-6.0} dB	
0	Bandwidth Luminance (50% modulation) Color difference (50% modulation)	•	Oxide Particle Tape:	Metal Particle Tape:		
nce	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB	Metal Particle Tape: 25Hz to 5.5MHz ^{+0.5} _{-3.0} dB 25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4MHz ^{+0.5} _{-6.0} dB 25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	
nance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT)	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB	Metal Particle Tape: 25Hz to 5.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4MHz ^{+0.5} _{-6.0} dB	
ormance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB	Metal Particle Tape: 25Hz to 5.5MHz ^{+0.5} _{-3.0} dB 25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4MHz ^{+0.5} _{-6.0} dB 25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	
erformance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — —	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB	
) Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB	Metal Particle Tape: 25Hz to 5.5MHz ^{+0.5} _{-3.0} dB 25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4MHz ^{+0.5} _{-6.0} dB 25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	
deo Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — —	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB ————————————————————————————————————	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3%	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — —	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2°	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB ————————————————————————————————————	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — —	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2%	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3%	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% —	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB More than 48dB — — — — — — — — —	25Hz to 4MHz ^{+0.5} dB 25Hz to 1.5MHz ^{+0.5} dB More than 46dB — More than 45dB — — ————————————————————————————————	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB More than 48dB ———————————————————————————————————	25Hz to 4MHz ^{+0.5} dB 25Hz to 1.5MHz ^{+0.5} dB More than 46dB — More than 45dB — Less than 20ns	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T)	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3%	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% —	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB More than 48dB — — — — — — — — —	25Hz to 4MHz ^{+0.5} _{-6.5} dB 25Hz to 1.5MHz ^{+0.5} _{-3.5} dB More than 46dB — — More than 45dB — — — — — — — — —	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB — Less than 3% — — Less than 20ns	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB More than 48dB Less than 20ns Less than 2%	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ———————————————————————————————————	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Performance	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level)	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns 50Hz to 15MHz +1.5/-3.0dB More than 72dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off)	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB More than 48dB Less than 20ns Less than 2%	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level)	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — — — — More than 48dB — — Less than 20ns Less than 2% 50Hz to 15MHz +1.5/-3.0dB More than 62dB (Dolby NR on)	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5%	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off)	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — More than 48dB — Less than 20ns Less than 2% 50Hz to 15MHz +1.5/-3.0dB More than 62dB (Dolby NR on) Less than 3%	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm)	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% ———————————————————————————————————	Metal Particle Tape: 25Hz to 5.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz)	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55%	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-0.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than -55%	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB — More than 48dB — Less than 20ns Less than 2% 50Hz to 15MHz +1.5/-3.0dB More than 62dB (Dolby NR on) Less than 3%	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perto	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz)	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% ———————————————————————————————————	Metal Particle Tape: 25Hz to 5.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB — — — — — — — — — — — — — — — — — —	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-0.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than -55% More than 65dB Less than 65dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB More than 48dB ———————————————————————————————————	25Hz to 4MHz ^{+0.5} dB 25Hz to 1.5MHz ^{+0.5} dB More than 46dB ————————————————————————————————————	
Video Perio	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 51dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55%	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-0.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than -55%	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB — — — — — — — —————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-0.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than -55% More than 65dB Less than 65dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB — — — — — — — —— ——————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter Wow and flutter (DIN45507, weighed) AFM	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB — Less than 0.15%rms —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-6.0} dB 30Hz to 1.5MHz ^{+0.5} _{-0.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than -55% More than 65dB Less than 65dB	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns Solution 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than 2% Less than 65dB Less than 0.15%rms Less than 0.15%rms	Metal Particle Tape: 25Hz to 5.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response Frequency response	30Hz to 4.5MHz +0.5/dB 30Hz to 1.5MHz +0.5/dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% Less than -55% More than 65dB Less than 0.15%rms 20Hz to 20kHz +0.5/-2.0dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% Less than 25% More than 65dB Less than 0.15%rms — — — — — — — — — — — — — — — — — —	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response	30Hz to 4.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB 30Hz to 1.5MHz +0.5 dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB — Less than 0.15%rms —	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB — Less than 3% — — — — — — — — — — — — — — — — — — —	Metal Particle Tape: 25Hz to 5.5MHz +0.5/dB 25Hz to 1.5MHz +0.5/dB More than 48dB — — — — — — ———————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ———————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter Wow and flutter Frequency response Frequency response Frequency response Frequency response Frequency Response (20dB below peak level (2)*) Dynamic Range S/N ratio (at peak level (2)* weighed CCIR 468-3)	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than 0.15% More than 65dB — Less than 0.15%rms — 20Hz to 20kHz +0.5/-2.0dB More than 80dB — More than 80dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns — Less than 20ns — Less than 50dB (Dolby NR off) Less than 2% — Less than 2% — Less than -55% More than 65dB — Less than 0.15%rms — — — — — — — — — — — — — — — — —	Metal Particle Tape: 25Hz to 5.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB 25Hz to 1.5MHz +0.5 dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response S/N ratio (at peak level (2)* weighed CCIR 468-3) Distortion (at 3% distortion level)	30Hz to 4.5MHz +0.5/dB 30Hz to 1.5MHz +0.5/dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% Less than -55% More than 65dB Less than 0.15%rms 20Hz to 20kHz +0.5/-2.0dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} _{-0.0} dB 30Hz to 1.5MHz ^{+0.5} _{-3.0} dB More than 48dB More than 50dB More than 50dB — Less than 3% — — — — — — — — — — — — — — — — — — —	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ———————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response Frequency response Frequency response Frequency response S/N ratio (at peak level (2)* weighed CCIR 468-3) Distortion (1kHz) at peak level (2)* Distortion (1kHz) at peak level (2)*	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than 0.15% More than 65dB — Less than 0.15%rms — 20Hz to 20kHz +0.5/-2.0dB More than 80dB — More than 80dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB Less than 3% Less than 20ns — Less than 20ns — Less than 50dB (Dolby NR off) Less than 2% — Less than 2% — Less than -55% More than 65dB — Less than 0.15%rms — — — — — — — — — — — — — — — — —	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response Frequency response Frequency response Frequency response S/N ratio (at peak level (2)" weighed CCIR 468-3) Distortion (1kHz) at peak level (2)" at operational level (4dBm) Distortion (1kHz) at peak level (2)" at operational level (4dBm)	30Hz to 4.5MHz +0.5/dB 30Hz to 1.5MHz +0.5/dB 30Hz to 1.5MHz +0.5/dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB — Less than 0.15%rms — 20Hz to 20kHz +0.5/-2.0dB More than 80dB — Less than 0.5% — Less than 0.5% — — Less than 0.5% — — — — ————————————————————————————	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB — Less than 3% —— Less than 20ns —— 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% —— Less than 65dB —— Less than 0.15%rms —— —— —— —— —— —————————————————————	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Audio Performance (VTR section) Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response Frequency response Frequency response Frequency response S/N ratio (at peak level (2)* weighed CCIR 468-3) Distortion (1kHz) at peak level (2)* Distortion (1kHz) at peak level (2)*	30Hz to 4.5MHz +0.5dB 30Hz to 1.5MHz +0.5dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3% Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than 0.15% More than 65dB — Less than 0.15%rms — 20Hz to 20kHz +0.5/-2.0dB More than 80dB — More than 80dB	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB More than 20dB Less than 20ns — Less than 20ns — Less than 20ns — Less than 50dB (Dolby NR off) Less than 50dB (Dolby NR off) Less than 65dB — Less than 0.15%rms — — — — — — — — — — — — — — — — — —	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	
Video Perfo	Bandwidth Luminance (50% modulation) Color difference (50% modulation) S/N ratio Luminance (Component IN/OUT) Chrominance AM PM Color difference Distortion Differential gain Differential phase Less than 2° K-factor (2T pulse) Less than 2% Y/C delay Pulse shape distortion (k-pulse, 2T) Longitudinal Frequency response S/N ratio (at 3% distorsion level) Distortion T.H.D. (at 1kHz reference level) Distortion (1kHz) at peak level at operational level (4dBm) Crosstalk (at 1kHz) Depth of erasure (1kHz) Erase ratio Wow and flutter Wow and flutter (DIN45507, weighed) AFM Frequency response Frequency response Frequency response Frequency response S/N ratio (at peak level (2)" weighed CCIR 468-3) Distortion (1kHz) at peak level (2)" at operational level (4dBm) Distortion (1kHz) at peak level (2)" at operational level (4dBm)	30Hz to 4.5MHz +0.5/dB 30Hz to 1.5MHz +0.5/dB 30Hz to 1.5MHz +0.5/dB More than 51dB More than 53dB More than 53dB More than 53dB Less than 2% Less than 3° Less than 3° Less than 20ns — 50Hz to 15MHz +1.5/-3.0dB More than 72dB Less than 1.5% — Less than -55% More than 65dB — Less than 0.15%rms — 20Hz to 20kHz +0.5/-2.0dB More than 80dB — Less than 0.5% — Less than 0.5% — — Less than 0.5% — — — — ————————————————————————————	Oxide Particle Tape: 30Hz to 4.1MHz ^{+0.5} dB 30Hz to 1.5MHz ^{+0.5} dB More than 48dB More than 50dB More than 50dB — Less than 3% —— Less than 20ns —— 50Hz to 15MHz +3.0/-3.0dB More than 50dB (Dolby NR off) Less than 2% —— Less than 65dB —— Less than 0.15%rms —— —— —— —— —— —————————————————————	Metal Particle Tape: 25Hz to 5.5MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 48dB ———————————————————————————————————	25Hz to 4MHz +0.5dB 25Hz to 1.5MHz +0.5dB More than 46dB ————————————————————————————————————	

^{*0}dB = 0.775Vrms
*Specifications given above were measured by playing back BVW-D600/D600P recorded material on standard Betacam SP VTRs.

BVV-5(NTSC)/5PS(PAL/SECAM)

Betacam SP Recorder Unit

- •Compact, rugged, lightweight, and low power consumption •Can be operated:
- directly connected to the camera as a Camcorder
- standalone with the optional VA-5/5P Component/ composite VTR Adaptor
- •More than 30 (NTSC)/35 (PAL) min of recording time using S-cassette •Two AFM audio channels in addition to two longitudinal audio channels with the Dolby™ C-type NR (Noise Reduction) system •Video/audio confidence playback •Viewfinder playback (luminance or CTDM selectable) •Color playback with the optional VA-500/500P Playback Adaptor •Full range of machine control provided (Fast forward/Rewind/Play/Stop/Eject) •Recording review function •Built-in LTC/VITC/User Bit generator and LTC reader with external time code lock capability •Frame accurate back space editing •LCD time code display •Built-in loudspeaker •Built-in external microphone power supply (+48V, Ch-1)

Supplied accessories: 50-pin connector cap

4-pin connector cap Shoulder belt Screw M4

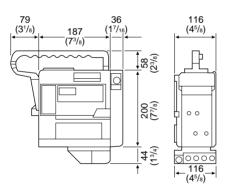
Operation and maintenance manual



BETACAM SP

VA-5 is optional





Unit: mm (inch)



Specifications

		RV	V-5	RVV	-5PS	
	Mass	Approx. 3.5 kg (7 lb 12 oz)				
	Power requirements	DC 12*5RV				
	Power consumption	14W				
	Operating temperature	0°C to +40°C (+32°F to +104°F)				
	Storage temperature			(-4°F to +140°F)		
ā	9 .			· /		
General	Humidity	44.04	<u> </u>	relative humidity)		
g	Tape speed		Scm/s		5cm/s	
	Recording/playback time		(with BCT-30MA)	More than 35 min (with BCT-30MA) Less than 5.5 min (with BCT-30MA)		
	Fast forward time	Less than 4.5 mir	(with BCT-30MA)		(With BCT-30MA)	
	Rewind time			n with BCT-30MA	(500)	
	Continuous operating time		* * * * * * * * * * * * * * * * * * * *	P-7A/7AP/70IS/70ISP and BVV-5	5/5PS)	
	Microphone		Sharp-direction	nal (detachable)		
		Metal Particle Tape	Oxide Tape	Metal Particle Tape	Oxide Tape	
	Bandwidth Luminance (50% modulation)	30Hz to 4.5MHz $^{+0.5}_{-3.0}$ dB	30Hz to 4.1MHz ^{+0.5} _{-6.0} dB	25Hz to 5.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4.0MHz ^{+0.5} _{-6.0} dB	
	Color difference (50% modulation)	30Hz to 1.5MHz ^{+0.5} _{-3.0} dB	30Hz to 1.5MHz +0.5dB	25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	
	S/N ratio					
	Luminance (Component IN/OUT)	More than 51dB	More than 48dB	More than 48dB	More than 46dB	
0	Chrominance AM	More than 53dB	More than 50dB	_	_	
Video	PM	More than 53dB	More than 50dB	_	_	
5	Color difference	_	_	More than 48dB	More than 45dB	
	Distortion					
	Differential gain	Less than 2%	Less than 3%	_	_	
	Differential phase	Less than 2°	Less than 3°	_	_	
	K-factor (2T pulse)	Less than 2%	Less than 3%	_	_	
	Y/C delay	Less than 20ns	Less than 20ns	Less than 20ns	Less than 20ns	
	Pulse shape distortion (K-pulse, 2T)	_	_	Less than 2%	Less than 3%	
	Longitudinal			50Hz to 15kHz ^{+1.5} _{-3.0} dB	50Hz to 15kHz ±3.0dB	
	Frequency response	50Hz to 15kHz ^{+1.5} _{-3.0} dB	50Hz to 15kHz ±3.0dB	(20dB below peak level (1)*)	(20dB below peak level (1)*)	
	S/N ratio	More than 72dB	More than 50dB (Dolby NR off)	More than 62dB	More than 58dB (Dolby NR on)	
	3/14 Tallo	(at 3% distortion level)	(at 3% distortion level)	(at peak level (1)* Weighted CCIR 468-3)	(at peak level (1)* Weighted CCIR 468-3)	
	Distortion T.H.D. (at 1kHz reference level)	Less than 1.5%	Less than 2%	(at peak level (1) Weighted COIN 400-3)	(at peak level (1) Weighted CON 400-3)	
	Distortion (at 1kHz) at peak level (1)*	Less than 1.5%	Less trail 2%	Less than 3%	Less than 3%	
	at operational level (+4dBm)	_	_	Less than 1.5%	Less than 2%	
	Crosstalk (at 1kHz)	Less than –55dB	Less than -55dB	Less than -55dB		
		More than 65dB	More than 65dB	Less than -550B	Less than -55dB	
٥	Depth of erasure (at 1kHz)	Wore than 650B	More than 650B	More than 65dB	More than 65dB	
Audio	Erase ratio (at 1kHz) Wow and flutter	Less than 0.15% rms	Less than 0.15% rms	Less than 0.15% rms (DIN45507)		
¥		Less than 0.15% rms	Less than 0.15% rms	` /	Less than 0.15% rms (DIN45507)	
	AFM			20Hz to 20kHz ^{+0.5} _{-2.0} dB	_	
	Frequency response	20Hz to 20kHz ^{+0.5} _{-2.0} dB	_	(20dB below peak level (2)*)		
	S/N ratio (at peak level (2)*					
	Weighted CCIR 468-3)	<u> </u>	_	More than 68dB	_	
	Dynamic range	More than 80dB	_	_	_	
	Distortion T.H.D. (at 1kHz reference level)	Less than 0.5%	_	_	_	
	Distortion (at 1kHz) at peak level (2)*	_	_	Less than 3%	_	
	at operational level (+4dBm)		_	Less than 0.6%	_	
	Crosstalk (at 1kHz)	Less than -65dB	_	Less than -65dB	_	

^{*}Peak level (1)=+8dB above operational level

^{*}Peak level (2)=+19dB above operational level

^{*}The specifications given above were measured by playing back tapes recorded by the BVV-5/5PS on standard Betacam SP VTRs.

 $^{{}^{\}star}\!\text{All}$ audio specifications in metal mode were measured with Dolby on.

BVW-50 (NTSC)/**50P** (PAL)

Betacam SP Portable Recorder/Player

•Accept both L-size and S-size cassette •Low power consumption—19W in Save Rec Mode •Continuous operation for up to 180 minutes on one BP-90A or up to 170 minutes on two NP-1B's is possible •Compact and lightweight (Approx. 8.5 kg/18 lb 12 oz, including a BP-90A battery and an S-size videocassette)

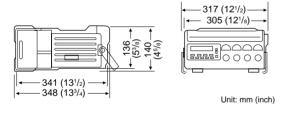
- ·Longer record/playback time
- More than 90 (NTSC)/100 (PAL) minutes with the L-size cassette
- Mote than 30 (NTSC)/35 (PAL) minutes with the S-size cassette

•Front loading system •Audio/Video confidence playback •Built-in TBC allows broadcast quality pictures to be transmitted with no additional TBC •Interface for an external TBC is also provided for user convenience •Player VTR capability via the RS-422A 9-pin serial interface for field editing •Built-in LTC/VITC/User Bits generator and reader with external genlock capability •Four independent audio meters, record level controls, playback level controls and XLR input/output connectors •Frame accurate back space editing •Recognizable picture can be monitored at full range of the speed in SEARCH mode (±5 times normal speed, color) and FAST FORWARD/REWIND mode (±16 times normal speed, monochrome) •Built-in character generator •Built-in external microphone power supply (+48V, CH-1/2/3/4) •Large LCD display •Simple remote control from an optional BVR-3 Remote Controller •Audio and video phono type output connectors allow handy monitoring on a TV receiver

Supplied accessories: Soft carrying case (1)

Operation and maintenance manual (1)

Dimensions









Specifications

		BVV	V-50	BVW	/-50P		
	Mass	Approx. 6.6 kg (14 lb 9 oz)					
	Power requirements	DC 12±₹8V					
	Power consumption		Save Rec Mode: 19W,	PB/EE Rec Mode: 29W			
	Operating temperature		0°C to +40°C (+32°F to +104°F)				
	Storage temperature	-20°C to +60°C (-4°F to +140°F)					
	Humidity	25% to 85% (relative humidity)					
ral	Tape speed	11.86	Scm/s	• • • • • • • • • • • • • • • • • • • •	10.15cm/s		
General	Recording/playback time		(with BCT-90MLA)	More than 100 min (with BCT-90MLA)			
Ö	· · · · · · · · · · · · · · · · · · ·		(with BCT-30MA)	More than 35 min (with BCT-30MA)			
	Fast forward time/rewind time		with BCT-90MLA)	Less than 7 min (with BCT-90MLA)			
		Less than 2 min (with BCT-30MA)			(with BCT-30MA)		
	Fast forward/rewind speed	Max. ±16 times normal speed (with monochrome picture)					
	Search speed		•	peed (with color picture)			
	Continuous operating time			in (with BP-90A)			
	Committee operating time	Motel Pertials Tons		, ,	Ovido Tono		
	B. L. W.	Metal Particle Tape	Oxide Tape	Metal Particle Tape	Oxide Tape		
	Bandwidth	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB	30Hz to 4.1MHz ^{+0.5} _{-6.0} dB	25Hz to 5.5MHz ^{+0.5} _{-3.0} dB	25Hz to 4.0MHz ^{+0.5} _{-6.0} dB		
	Luminance (50% modulation)						
	Color difference (50% modulation)	30 Hz to 1.5 MHz $^{+0.5}_{-3.0}$ dB	30Hz to 1.5MHz ^{+0.5} _{-3.0} dB	25Hz to 1.5MHz ^{+0.5} _{-3.0} dB	25Hz to 1.5MHz ^{+0.5} _{-3.0} dB		
	S/N ratio						
	Luminance	More than 51dB	More than 48dB	More than 48dB	More than 46dB		
		(Component IN/OUT)	(Component IN/OUT)				
_		More than 49dB					
Video		(Component IN/OUT)					
⋝	Chrominance AM	More than 53dB	More than 50dB	_	_		
	PM	More than 53dB	More than 50dB	_	_		
	Color difference	_	_	More than 48dB	More than 45dB		
	Distortion						
	Differential gain	Less than 2%	Less than 3%	_	_		
	Differential phase	Less than 2°	Less than 3°	_	_		
	K-factor (2T pulse)	Less than 2%	Less than 3%	_	_		
	Y/C delay	Less than 20ns	Less than 20ns	Less than 20ns	Less than 20ns		
	Pulse shape distortion (K-pulse, 2T)	_	_	Less than 2%	Less than 3%		
	Longitudinal			40Hz to 15kHz +1.5 -3.0dB	40Hz to 15kHz ±3.0dB		
	Frequency response	40Hz to 15kHz ^{+1.5} _{-3.0} dB	40Hz to 15kHz ±3.0dB	(20dB below peak level (1)*)	(20dB below peak level (1)*)		
	S/N ratio	More than 72dB	More than 50dB (Dolby NR off)	More than 62dB	More than 58dB (Dolby NR on)		
		(at 3% distortion level)	(at 3% distortion level)	(at peak level (1)* Weighted CCIR 468-3)	(at peak level (1)* Weighted CCIR 468-3)		
	Distortion T.H.D. (at 1kHz reference level)	Less than 1.5%	Less than 2%	_	_		
	Distortion (at 1kHz) at peak level (1)*			Less than 3%	Less than 3%		
	at operational level (+4dBm)	_	_	Less than 1.5%	Less than 2%		
	Crosstalk (at 1kHz)	Less than -55dB	Less than -55dB	Less than -55dB	Less than -55dB		
	Depth of erasure (at 1kHz)	More than 65dB	More than 65dB	_	_		
ej O	Erase ratio (at 1kHz)	_	_	More than 65dB	More than 65dB		
Aud	Wow and flutter	Less than 0.15% rms	Less than 0.15% rms	Less than 0.15% rms (DIN45507)	Less than 0.15% rms (DIN45507)		
	AFM			20Hz to 20kHz +0.5 -2.0dB	,		
	Frequency response	20Hz to 20kHz ^{+0.5} _{-2.0} dB	_	(20dB below peak level (2)*)	_		
	Dynamic range	More than 80dB	_	— (2008 801011 pour 10101 (2))	_		
	S/N ratio	More than oodb					
	(at peak level (2)*Weighted CCIR 468-3)		_	More than 68dB	_		
	Distortion T.H.D. (at 1kHz reference level)	Less than 0.5%	_		_		
	Distortion (at 1kHz) at peak level (2)*	2000 11011 0.070		Less than 3%			
	at operational level (+4dBm)		_	Less than 0.6%	_		
	Crosstalk (at 1kHz)	Less than -65dB	_	Less than -65dB	_		
	Crossian (at TRITZ)	LOSS MAIT TOULD	_	LCGG trial1 -000D			

^{*}Peak level (1)=+8dB above operational level

^{*}Peak level (2)=+19dB above operational level

 $^{{}^{\}star}\text{All}$ audio specifications in metal mode were measured with Dolby on.

BVW-75 (NTSC)/75P (PAL)

Betacam SP Studio Recorder/Player with DT

•More than 90 (NTSC)/100 (PAL) minutes of recording/ playback time using the L-cassette •Two AFM audio channels in addition to two longitudinal audio channels with the Dolby C-Type NR (Noise Reduction) system •Dynamic Tracking (DT) provides broadcast quality pictures from -1 to +2 times normal speed •Dynamic Motion Control edit memory function •High speed picture search provides recognizable color pictures at up to 5 times normal speed in forward and reverse (24 times in monochrome) •RS-422A 9-pin remote control interface •36-pin parallel remote control interface •Audio/video confidence playback •Built-in comprehensive two-machine editing •Built-in sophisticated TBC with 32 line correction window and advanced, high quality, digital dropout compensator •Built-in LTC/VITC/User Bits generator and reader •SC-H indicator for composite input and output •Built-in character generator provides "Burnt-in" time code output •Built-in capstan override allows playback tape speed to be varied ±16% in 2% steps via the search dial •Initial setup offers operational flexibility via the search dial•Built-in self-diagnostics •BNC component signal inputs and outputs •19-inch rack mountable

Supplied accessories: AC power cord (1)

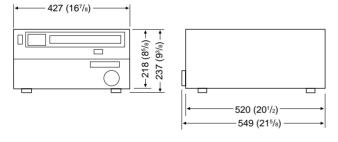
12-pin dubbing cable VDC-C5 (5m) (1)

9-pin remote control cable RCC-5G (5m) (1)

Extension board (3)

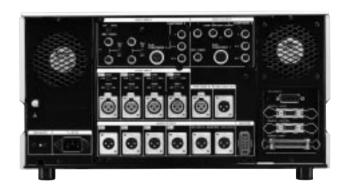
Operation and maintenance manual (1)

Dimensions









Unit: mm (inch)

Specifications

		BVV	V-75	BVW	/-75P		
	Mass		Approx. 30 k	g (66 lb 2 oz)			
İ	Power requirements	AC 90 to 265V, 48 to 64Hz					
	Power consumption	240W					
	Operating temperature	+5°C to +40°C (+41°F to +104°F)					
	Storage temperature	-20°C to +60°C (-4°F to +140°F)					
İ	Humidity		Less than 80 % ((relative humidity)			
Ì	Tape speed		NTSC: 11.86cm /	s, PAL: 10.15cm/s			
General	Recording/playback time			PAL) min with BCT-90MLA			
au	, tooo, ag, play zaok tillo		, , ,	PAL) min with BCT-30MA			
ŏ ∤	Fast forward time/rewind time		, , ,	with BCT-90MLA			
ŀ	Search speed		2000 11011 100 0	Will BOT COME.			
	SHUTTLES		STILL 1/30 1/10 1/5 1/2 1 2 F	5 and 24 times normal speed fro	vard and reverse		
	VAR	STILL,1/30, 1/10, 1/5, 1/2, 1, 2, 5, and 24 times normal speed, frward and reverse -1, -½, -½, -½, -½, -½, STILL,⅓, ½, ½, 1, and 2 times normal speed					
	JOG	Frame by frame, forward and reverse					
ŀ	* * * *						
ŀ	Dynamic Traking range			s normal speed			
	Lock up time			om standby mode			
		Metal Particle Tape	Oxide Tape	Metal Particle Tape	Oxide Tape		
	Bandwidth Luminance (50% modulation)	30Hz to 4.5MHz ^{+0.5} _{-3.0} dB	30Hz to 4.1MHz ^{+0.5} _{-6.0} dB	25Hz to 5.5MHz ^{+0.5} _{-3.0} dB (relative to 0.5MHz)	25Hz to 4.0MHz ^{+0.5} _{-6.0} dB (relative to 0.5MHz)		
	Color difference	0011 4 5 5 10	0011 4 5041 +0.5 ID	25Hz to 2.0MHz ^{+0.5} _{-3.0} dB	25Hz to 1.5MHz ^{+0.5} _{-3.0} dB		
	(50% modulation)	30Hz to 1.5MHz ^{+0.5} _{-3.0} dB	30 Hz to 1.5 MHz $^{+0.5}_{-3.0}$ dB	(relative to 0.5MHz)	(relative to 0.5MHz)		
	S/N ratio	More than 51dB	More than 48dB	More than 48dB	More than 46dB		
	Luminance	(Component IN/OUT)	(Component IN/OUT)	(Unweighted)	(Unweighted)		
		More than 49dB		(SC Trap: off, 10kHz to 5MHz)	(SC Trap: off, 10kHz to 5MHz)		
		(Component IN/OUT)					
	Chrominance AM	More than 53dB	More than 50dB	_	_		
Video	PM	More than 53dB	More than 50dB	_	_		
≥ ا	Color difference (Unweighted)	_		More than 48dB	More than 45dB		
ŀ	Distortion			Word than 100B	Mere train read		
	Differential gain	Less than 2%	Less than 3%				
				_	_		
	Differential phase	Less than 2°	Less than 3°	_	-		
	K-factor (2T pulse)	Less than 2%	Less than 3%	_	_		
	Y/C delay	Less than 20ns	Less than 20ns	Less than 20ns	Less than 20ns		
ŀ	L.F.linearity	Less than 3%	Less than 4%	_	-		
	Pulse shape distortion (K-pulse)						
	Luminance(2T)	_	_	Less than 1.5%	Less than 3%		
	Color difference (8T)	-	_	Less than 1.5%	Less than 3%		
	Longitudinal	50Hz to 15kHz ^{+1.0} _{-2.0} dB	50Hz to 15kHz ±3.0dB	50Hz to 15kHz ^{+1.0} _{-2.0} dB	50Hz to 15kHz ±3.0dB		
	Frequency response		(at 10dB below reference level)	(20dB below peak level(1)*)	(20dB below peak level(1)*		
	S/N ratio	72dB	50dB (Dolby NR off)	More than 68dB	More than 62dB		
		(at 3% distortion level)	(at 3% distortion level)	(at peak level (1)* Weighted CCIR 468-3)	(at peak level (1)* Weighted CCIR 468-3		
	Distortion T.H.D. (at 1kHz reference level)	Less than 1%	Less than 2%	— (arpanisarity regime consists)	(at positions (1) morginus 2011 100 0		
	Distortion (K-3) (at 1kHz) at peak level (1)*			Less than 3%	Less than 3%		
	at operational level (+4dBm)	_	_	Less than 1%	Less than 1%		
	Crosstalk (at 1kHz)	Less than -65dB	<u>_</u>	Less than –71dB	Less than –60dB		
	Stereo phase (at 15kHz)	Less than 20°	_	±20°	±45°		
	Erase ratio(at 1kHz)			More than 65dB	More than 65dB		
	Depth of erasure			Word than odd	More than eeds		
	(for recorders only) (at 1kHz)						
。	REC mode	More than 70dB	More than 70dB				
Audio	INSERT mode			_	<u> </u>		
∢	Wow and flutter	More than 65dB	More than 65dB	Less than 0.1% rms (DIN44507)			
		Less than 0.1% rms	Less than 0.1% rms	, ,	LESS HIGH U. 17011115 (DIN445)		
	AFM	2011 1 5-111 105		20Hz to 20kHz ^{+0.5} _{-2.0} dB	_		
	Frequency response	20Hz to 20kHz ^{+0.5} _{-2.0} dB	_	(20dB below peak level (2)*)			
	Dynamic range	More than 85dB	_	_	_		
	S/N ratio						
	(at peak level (2)*Weighted CCIR468-3)	_	<u> </u>	More than 72dB	_		
	Distortion T.H.D. (at 1kHz reference level)	Less than 0.5%	-	_			
	Distortion (K-3) (at 1kHz) at peak level (2)*	_	_	Less than 3%	_		
	at operational level (+4dBm)	_	_	Less than 0.5%	_		
	Stereo phase (at 20kHz)	Less than 10°	_	±10°	_		
	Crosstalk	Less than -70dB (at 1kHz)		Less than -70dB (at 100Hz to 12.5KHz)	_		
	Wow and flutter (DIN 45507)	_	_	Less than 0.01%	_		

^{*}Peak level (1)=+8dB above operational level

^{*}Peak level (2)=+19dB above operational level

^{*}All audio specifications were measured with Dolby on.

BVX-10(NTSC)/10P(PAL)

Component Color Corrector

- •Component signal color corrector for Betacam VTR
- •Preset/manual control of Gain, Set up level/Black level and Gamma on R.G.B. signals
- •Easy connection
- 12-pin multi cables for component input and output
- BNC connectors for component input and output (Y, B-Y, R-Y)
- •Remote controller supplied (BVR-58/58P) •19-inch rack mountable

Supplied accessories: Rack mount units

Remote control cable (5m, 25-pin) Operation and maintenance manual

Specifications

Power requirements: AC 90 to 132V, 50/60Hz (BVX-10)

AC 198 to 264V, 50/60Hz (BVX-10P)

Power consumption: 40W

Mass: Main unit: 6.1 kg (13 lb 7 oz)

Remote controller: 0.9 kg (2 lb)

Dimensions: Main unit: $424(W) \times 44(H) \times 410(D)$ mm

(163/8 x 13/4 x 43/8 inches)

Remote controller: 212(W) × 44(H) × 110(D)mm

(8% × 1¾ × 4% inches)







BVR-75A(NTSC/PAL)

Remote Control Unit

•Designed for remote control of the functions of the Betacam SP studio VTRs via the supplied 5 meter remote control cable

Specifications

Power requirements: DC 9V (supplied from VTR)

Power consumption: 7W

Mass: 2.3 kg (5 lb 1 oz)

Dimensions: $448(W) \times 70(H) \times 218(D)mm$

 $(17^3/4 \times 2^7/8 \times 8^5/8 \text{ inches})$

Cable length: 5m (approx. 17 feet)



BVR-50 (NTSC)/50P (PAL)

TBC Remote Controller

•Designed to control the following units:

Betacam SP studio VTRs built-in TBC

•19-inch rack mountable: Can be installed alone with the supplied blank panel or together with the remote controller of the BVX-10/10P Component Color Corrector

Supplied accessories: Remote control cable (5m, 15-pin)

Rack mount unit

Operation and maintenance manual

Specifications

Power requirements: DC 12V (supplied from TBC/VTR)

Power consumption: 400mW

Mass: 820 g (1 lb 13 oz)

Dimensions: 212(W) × 43.6(H) × 110(D)mm

 $(8\% \times 1\% \times 4\% \text{ inches})$





VA-5 (NTSC)/5P (PAL)

Component/Composite VTR Adaptor

•Enables BVV-5/5PS to be connected via cables to a single source •Component or composite signals can be connected via 26-pin connector •Additional composite signal input via BNC connector •Two audio level meters provided •Recorder control provided on top panel •Tape remaining indicator

Supplied accessories: Shoulder belt

Operation and maintenance manual

Specifications

Power requirements: DC 12 +5 V

Max. 8W (Composite I/P) Power consumption:

Max. 2.5W (Component I/P) Mass: Approx. 1.2 kg (2 lb 2 oz) Dimensions:

 $90(W)\times222(H)\times148(D)mm$ $(3\% \times 8\% \times 5\% \text{ inches})$



VA-500 (NTSC)/500P (PAL)

Playback Adaptor

•Provides full color replay from BVV-5/5PS and BVW-D600/D600P •Single 20-pin multicable connection to recorder (2m cable supplied with VA-500/500P)

•Composite video output •VHF (NTSC)/UHF (PAL) output gives color replay on TV receivers •One channel audio (either single or mixed channel) replay •External TBC interface capability provides broadcast quality replay

Supplied accessories: Connecting cable (2m, 20-pin)

Shoulder strap

Operation and maintenance manual

Specifications

Power requirements: DC 12 +5 V Power consumption: 15W

Mass: Approx. 2.0 kg (4 lb 7 oz)
Dimensions: $212(W) \times 88(H) \times 222(D)mm$ $(83/6 \times 31/2 \times 83/4 \text{ inches})$



BVR-3

Remote Controller

•Designed for use with the BVW-50/50P and DVW-250/250P in EFP applications •Fast Forward, Rewind, Play, Stop, Record, Pause, Search, and Key inhibit can be remotely controlled via its special RCC-B5G/B10G/B30G cable (option), which combines a Sony 9-pin remote control cable with a 4-pin DC power cable •Can be easily mounted on a tripod or microphone stand •Remote control of other RS-422A equipped Sony VTR's are possible via the RCC-5G/10G/30G cable when external DC power is supplied to the BVR-3 through the DC IN connector

Supplied accessories: Thread Adaptor (for 1/2 inch screw) (1)

Operation and maintenance manual (1)

Specifications





WRR-860A

Wireless Microphone Receiver for BVW-D600/D600P



WRR-855A

Wireless Microphone Receiver (adaptor required) for BVW-D600/D600P



WRR-810A

Wireless Microphone Receiver for BVW-D600/D600P



BK-7503PS/7504PS

Betacam SP Component Serial Digital Interface



BK-75A

Betacam SP Component Parallel Digital Interface



BKW-401

Viewfinder Rotation Bracket for BVW-D600



BKW-402A

VTR Connecting Unit (26-pin) for BVW-D600/D600P



BKW-L601

Lithium-ion Battery Adaptor for BVW-D600



RMM-100

Rack Mount Kit for BVW-75



LC-201*

Carrying Case for BVW-D600

*The LC-201 is not available in some areas.



BKP-L551

Li-ion Battery Adaptor

- •With the BKP-L551, the BP-L60/BP-L90 can be used with the CA-550/57A/55A/50A/3A/550P/57AP/50AP
- •The BKP-L551 can be directly attached to the rear part of the CAs by using screws or through a battery table assembly

BCT-5G/10G/20G/30G BCT-5GL/30GL/60GL/90GL

BCT series BETACAM Tapes

		•	
Model	Tape length m (ft)	Playing time (min)	Mass* g (lb)
BCT-5G	42 (138)	5	260 (0.57)
BCT-10G	78 (256)	10	270 (0.60)
BCT-20G	150 (492)	20	285 (0.63)
BCT-30G	222 (728)	30	300 (0.66)
BCT-30GL	243 (797)	30	660 (1.46)
BCT-60GL	457 (1,499)	60	730 (1.61)
BCT-90GL	670 (2,198)	90	790 (1.74)

*with case



BCT-5MA/10MA/20MA/30MA BCT-5MLA/10MLA/20MLA/30MLA/60MLA/90MLA

BCT MA series BETACAM SP Tapes

Model	Tape length m (ft)	Playing time (min)	Mass* g (lb)
BCT-5MA	42 (138)	5	260 (0.57)
BCT-10MA	78 (256)	10	270 (0.60)
BCT-20MA	150 (492)	20	285 (0.63)
BCT-30MA	222 (728)	30	300 (0.66)
BCT-30MLA	243 (797)	30	660 (1.46)
BCT-60MLA	457 (1,499)	60	730 (1.61)
BCT-90MLA	670 (2,198)	90	790 (1.74)

*with case



BCT-5CLN

Head Cleaning Videocassette Tape for Betacam Recorder/Player



Video Server & Disk Recorder

V SR-2000	104
BKSR-2020	
BKSR-2021	105
BKSR-2030	
BKSR-2031	
BKSR-2070	106
BKSH-209G	
BKSH-218G	106
BKSH-236G	
BZSR-2000	
RMM-2000	
MAV-555	108
MAV-70	110
MAV-S100/S110	111
MAV-1000/S1000/S1010	
SIU-80	113

7 Video Server & Disk Recorder



Multi Access Vide and Audio Server

•Incorporates MPEG-2 (Main Profile @ Main Level) encoder, decoder, and Storage device in a compact body •For optimum encoding, the bit rate can be selected to be 4 Mb/s, 6 Mb/s, or 8 Mb/s •Clips encoded at different bit rates can be stored in the same server •Back-to-back playout without black •Five hard disk units incorporated •Auto Data Rebuild by RAID Level 3 technology •Hot-swappable hard disks •Trimming function allows playout from specified In Points and Out Points •Shuttle function provides quick Search and Pause •Equipped with an RS-232C or RS-422A interface for control •Five slots for optional I/O boards allows flexible configuration •Optional output boards provide analog (composite, component, R/G/B) or SDI signals •The MPEG-2 file data can be transferred via Ethernet (10Base-T or 100baseT). •DVB-ASI ready

Optional accessories: BKSR-2020 SDI MPEG Encoder Board

BKSR-2021 Analog MPEG Encoder Board BKSR-2030 SDI MPEG Decoder Board Analog MPEG Decoder Board BKSR-2031

BKSR-2070 100BaseT Board BKSH-209G 9GB HDD Unit BKSH-218G 18 GB HDD Unit BKSH-236G 36 GB HDD Unit RMM-2000 Rack Mount Kit BZSR-2000 Playout Control Software



Video

Signal (BKSR-2021): Analog composite: BNC (x1)

Analog component: BNC (x3)

(BKSR-2020): SDI: BNC (x1), Roop through: BNC (x1) Encode format: MPEG-2 MP@ML

Bit rate: 4.0/6.0/8.0 Mb/s Image size: ITU REC 601

NTSC: 720 pixels x 480 lines PAL: 720 pixels × 576 lines

Aspect ratio: 4:3

Audio

(BKSR-2021): Analog (2ch): XLR 3-pin (x2) Male Signal (BKSR-2020): SDI (Embedded with video)

MPEG-1, Audio layer II Encode format: Bit rate: 384 Mb/s

Sampling frequency: 48 kHz Output (Decoder) (4ch, Max. 5ch)

Video

Signal (BKSR-2031): Analog composite (2ch): BNC (x2)

Analog component (1ch) or RGB (1ch): BNC (x3)

(BKSR-2030): SDI: BNC (×1)

Audio

(BKSR-2031): Analog (2ch): XLR 3-pin (x2) Male (BKSR-2030): Digital (2ch): SDI-embedded Analog (2ch): XLR 3-pin (x2) Male

Hard Disk Drive Unit

Storage Capacity

BKSH-209G 9 GB (×5): 45 GB BKSH-218G: 18 GB (x5): 90 GB BKSH-236G: 36 GB (x5): 180 GB

Control Signal REMOTE: D-sub 9-pin RS-232C (Male)/

RS-422A (Female) switchable VTR REMOTE: D-sub 9-pin RS-422A (Female) General

Power requirement: AC100 V to 240 V, 50/60 Hz

Power consumption: 500 W

424 × 221 × 655 (mm), Dimension ($w \times h \times d$):

 $16 \frac{3}{4} \times 8 \frac{3}{4} \times 25 \frac{7}{8}$ (inches)





7 Video Server & Disk Recorder

BKSR-2020

SDI MPEG Encoder Board

*Allows input of SDI (1ch, BNC × 1)



BKSR-2021

Analog MPEG Encoder Board

•Allows input of analog composite (1ch, BNC \times 1) and component (1ch, BNC \times 3)

BKSR-2030

SDI MPEG Decoder Board

•Decodes MPEG-2 data and converts it to SDI (BNC \times 1, and roop through)

BKSR-2031

Analog MPEG Decoder Board

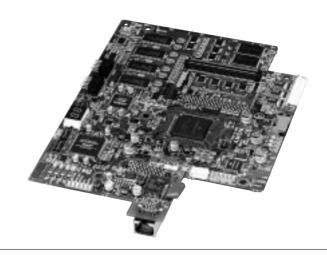
•Decodes MPEG-2 data and converts it to analog composite (2 ch, BNC \times 2) and analog component or RGB signal(1 ch, BNC \times 3)



BKSR-2070

100BaseT Board

•Allows high-speed data transfer via Ethernet of 100Base-TX



BKSH-209G

9GB HDD Unit

•A hard disk drive unit with a storage capacity of 9 GB, designed to be used in the VSR-2000.



BKSH-218G

18 GB HDD Unit

•A hard disk drive unit with a storage capacity of 18 GB, designed to be used in the VSR-2000.

BKSH-236G

36 GB HDD Unit

•A hard disk drive unit with a storage capacity of 36 GB, designed to be used in the VSR-2000.

BZSR-2000 (V1.0)

Playout Control Software

•Playout control software of the VSR-2000 •Incorporates all the basic functions for Encoding, Clip Management, Playlist Creation, and Playout Monitoring of the VSR-2000





RMM-2000

Rack Mount Kit

•Rack mount kit for the VSR-2000 •Conforms to EIA standard 19-inch rack size

New **MAV-555**

Multi-access Video Disk Recorder

•The MAV-555 is MPEG-based, multi-channel editing disk recorder. •Capacity of 9 GB and 18 GB models are available. •Simultaneous multiple I/O channels. •Compact, all-in-one, design that includes a shock-proof HDD. •Selectable bit rate - 30 Mbps, 40 Mbps or 50 Mbps, •Fast scene search with a VTR-style jog/shuttle knob. •Network file browsing capability for file searching, remote control and self-diagnosis/log extraction/setup. •Independently editable, high-quality audio channels - 4 uncompressed, 20-bit/48 kHz AES/EBU digital audio on each video channel. •Real-time editing capability. •File transfer capability - synchronously at up to twice normal speed via SDTI or asynchronously to match a computer LAN. •A variety of I/O boards and interface boards for system flexibility •High reliability with parity drive and RAID technology.

Accessories Supplied: Operation manual (1)

Installation manual (1) Rack mount metals (2)

Optional function Boards and support Components:

BKMA-505, Disk Recorder Control Panel BKMA-510, Input and Output Processor Board BKMA-511, A/D Converter Board

BKMA-512, D/A Converter Board BKMA-530, Input and Output Processor Board

BKMA-540, SDTI Board

BKMA-550, Asynchronous Network Board BKMA-560, Video Effect Board BKMA-570, Analog Audio Expansion Unit

RMM-555, Rack Mount Kit

Specifications:

General

Power requirements: AC 90 V to 265 V, 48 Hz to 64 Hz Power consumption: Max. 600W (including all option boards) Operating temperature: +5°C to +40°C (+41°F to +104°F) Storage temperature: -20°C to +60°C (-4°F to +140°F) 25% to 80% (relative humidity) Humidity: 50 kg (110 lb) (including all option boards) Weight

424(W) x 286(H) x 629(D) mm Dimensions:

(16 3/4 x 11 3/4 x 24 3/4 inches")

Operational Performance

Recording/Playback time

Max.5 hours @30 Mbns (9 GB):

(5 h @30 Mbps/4 h @40 Mbps/3 h @50 Mbps

selectable)

Max. 10 hours @30 Mbps (18 GB):

(10 h @30 Mbps/8 h @40 Mbps/6 h @50 Mbps

selectable)

Search Speed:

SHUTTLE mode: Max. ±500 times normal speed

(Maximum speed range ±32 /...±100 .../±500 selectable), frame by frame (±4 times), velocity

modulated sound

JOG/VAR mode: ±1 times normal speed/±2 times normal speed*1

selectable, field by field, DJS

Program Play: ±10% normal speed*1 Cue up time: Min. 0.5 seconds Time shift: Min. 60 frames

Min. duration 1 frame, up to 5,000 clips

Note *1 Using optional BKMA-530(Output Processor Boards) and 2 ports

Digital Video Performance

CODEC:

Compression: MPEG2 4:2:2 Profile@ML GOP N=1 (intra) Max. 50Mbps (50 Mbps/40 Mbps/30 Mbps Bit rate:

selectable)

Encoding samples: Y:720/ line, B-Y/R-Y:360/ line Encoding lines: 525:1 - 3, 10 - 265, 273 - 525 625:7 - 310, 320 - 623

Sampling frequency: Y: 13.5 MHz, R-Y/B-Y:6.75 MHz

Quantization: 8 bits/sample



Digital input to digital output:

Bandwidth: Y: 0.5 - 5.75 MHz +0.5/-0.75 dB

R-Y/B-Y: 0.5 - 2.75 MHz +0.5/-0.75 dB

Analog composite input to analog composite output:

S/N ratio: More than 54 dB Differential gain: Less than 2% Differential phase: Less than 2° Y/C delay: Less than 10 ns K-factor(2T pulse): Less than 1%

LF non-linearity: Less than 3% (including quantization noise)

Digital Audio Performance

48 kHz Sampling frequency: Quantization: 20 bits/sample

Analog input to output: A/D and D/A quantization:

20 bits/sample

20 Hz to 20 kHz +0.3/-0.5 dB (0 dB at 1 kHz) Frequency response: More than 95 dB (at 1 kHz, emphasis ON) Dvnamic range:

Less than 0.04% Distortion:

(at 1 kHz, emphasis ON, ref. level=+4 dBm)

Less than -90 dB Cross talk:

(at 1 kHz, between any two channels) 20 dB (18 dB selectable) Head room:

Emphasis:

T1=50 us, T2=15 us (ON/OFF selectable) Input reference level: +4 dBm (+4/ 0 / -3 / -20 dBm selectable)

Processor Adjustment Range

Video

Video level: ±3 dB / -∞ to 3 dB selectable Chroma level: ± 3 dB / $-\infty$ to 3 dB selectable

Set up/Black level: ±30 IRE / ±210 mV

Hue/Chroma phase: ±30°

±30 us (SC step) System sync phase: System SC phase: ±200 ns (0.3 ns step)

Audio:

-∞ to 20 dB Input level: Output level: -∞ to 12 dB

±30 frames in FULL mode, Output phase:

±100 samples in FINE mode

Audio mixer:

Fade Time: 0 to 10 s in FULL mode, 0 to 500 ms in FINE mode

Analog Signal Input

BNC (x2 loop-through connection), composite, Video reference:

0.3 Vp-p, 75 Ω , sync negative

Analog composite(option*1)

BNC (x2 loop-through connection) x 2 ports,

1.0 Vp-p, 75 Ω , sync negative

Analog audio(option*1*2): XLR (x4) x 2 ports

-60 dBu,high impedance,balanced +4 dBu,high impedance,balanced /

+4 dBu,600 Ω termination balanced selectable Timecode reference: BNC x1, 0.5 Vp-p – 18 Vp-p, 10 k Ω , unbalanced

Timecode: BNC(x1) x2 ports, 0.5 Vp-p

-18 Vp-p, 10 kΩ, unbalanced

Note*1 Using optional BKMA-511(A/D Converter Board) Note*2 Using optional BKMA-570(Analog Audio Expansion Unit)

Analog Signal Output

Analog composite (option*1)

BNC (x2) x 3 ports, 1.0 Vp-p, 75Ω, sync negative

Analog audio (option*1 *2):

XLR (x4) x 3 ports,

+4 dBu at 600 Ω load, low impedance, balanced

Timecode: BNC (x1) x3 ports

2.2 Vp-p at 600 Ω load, low impedance

unbalanced

Video monitor: BNC x1, composite, 1.0 Vp-p, 75 Ω, sync negative

with character super

Audio monitor L/R: XLR x2

+4 dBu at 600 Ω load, low impedance, balanced

Headphones: JM-60 stereo phone jack

-∞ to -12 dBu at 8 Ω load, unbalanced

Note*1 Using optional BKMA-511(A/D Converter Board) Note*2 Using optional BKMA-570(Analog Audio Expansion Unit)

Digital Signal Input/Output

Inputs

SDI BNC (w/2 active-through connection) x 2 ports,

SMPTE 259M

SDTI(option*1): BNC x1

BNC(stereo pair x2) x 2ports, AES/EBU Digital audio:

Outputs

SDI: BNC (x2) x 3 ports, SMPTE 259M

SDTI(option*1): BNC (x1)

Digital audio: BNC(stereo pair x2) x 3 ports, AES/EBU Video monitor: BNC x1, SMPTE 259M, with character super

Note*1 Using optional BKMA-540 (SDTI Board)

Remote

RS-422A

Remote In 1/2/3/4: D-SUB 9-pin (F) x4, Sony 9-pin VTR protocol,

Sony 9-pin Disk protocol

Remote Out 1/2: D-SUB 9-pin (F) x2, for external VTR control

(Sony 9-pin VTR protocol)

GPI: D-SUB 50-pin (F) x1, 24 inputs (5 V CMOS),

24 outputs (Open collector) Ethernet: RJ45 x1, 100BaseT

AUX: D-SUB 9-pin (F) x1

Video Effects

Sampling frequency: Y: 13.5 MHz, R-Y/B-Y:6.75 MHz, K: 13.5 MHz

Quantization: 8 bits/sample Delay: 1 frame

Effect: Location, Trail, Lighting, Shadow, DSK

Pattern:

Dissolve

Wipe: Single, Rotary, Matrix

2D: Still Mirror, Dynamic Mirror, Stream, Accordion,

Multi-Screen, Slide, Split Slide, Compression,

Expand, Bound, 2D Rotation

Screen: Mosaic, Y&C Modify, Zoom up, Cropping, Real Paint, Stained Glass, Wave Modulation

Spot light/Center image

Lighting: 3D Rotation, Split 3D Rotation,

3D Rotation + Compression + Slide,

Door, Album page turn, Flip/Tumble, Twist, Page

turn, Split Page turn, Sphere

Normal, 3D, Skew, Sphere P in P:

Note Using optional BKMA-560 (Video Effect Board)

MAV-70

Transmission server

•MPEG2 based server •Selectable profiles, GOP, and bit rates •Up to 10 I/O configurable either as inputs or outputs with the optional MAV-EX70 Expansion Unit •Networked system interconnection with Fibre Channel and Ethernet •Near-line data tape storage from hundreds of Gigabytes to million of Gigabytes •High reliability - RAID-3 storage, hot swappable components and redundant PSUs •Open architecture •Large storage capacity from 63 GB to up to 504 GB •Audio /VBI support •5U high one-piece-design compact size

MAV-70 Server Components:

MAV-70, Server Chassis MAV-EX70, I/O Extension Chassis BKMA-7010, SDI Encoder/Decoder Board BKMA-7020, Encoder Board

BKMA-7030, Decoder Board BKMA-7040, Fibre Channel Port Board BKMA-PS70, Optional, redundant PSU

Application Software Packages:

BZA-900, Multi-Channel Manager software BZA-820, Transmission Management software BZAA-821, I/O Expansion Option software BZAA-822, Time Shift Option software BZAA-823, Copy Management Option software

Specifications:

General

Power supply: AC 100 - 240 V, 50/60 Hz

Power consumption: 620 VA

Video Input/Output

•422P@ML on MPEG-2(including MP@ML)
•User Presetable Bit Rate file by file

MP@ML:1.5 - 15 Mbps 422P@ML:1.5 - 50 Mbps

•SDI

Analog composite

Audio Input/Output

•AES/EBU 32, 44.1, 48 kHz 16 bits or MPEG - 1

Layer 2

•4 channels per video channel •AES/EBU (for 1/2 channel) •AES/EBU (for 3/4 channel)

(selectable source arrangement: 3/4 or 1/4 or 3/2 or

1/2)

•Analog input and output: 2 XLR connectors (2 channels analog input / output per video channel)

EMC & Safety

VCCI (CLASS-A/Japan), FCC(PART15 CLASS-A/ USA),

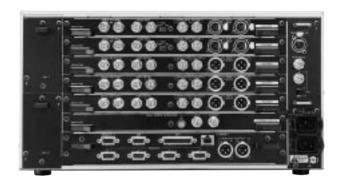
EU-EMC(EN55022 CLASS-B/Europe) (EN50082-1)

IC(ICES-003 CLASS-A/Canada),

AU-EMC(AS/NZS3548 CLASS-B/Australia)

(AS/NZS 4252)





MAV-S100/S110

Multi Access Video and Audio Server

•Large storage capacity — total capacity of 29.4GBytes for the MAV-S100 and 63.7GBytes for the MAV-S110 •Highspeed transfer rate •Excellent reliability — to assure 24hour continuous operation in broadcast stations •A 19-inch rack and three units high compact design

Specifications

General

Power requirement: AC 100 to 240V ±10%, 50/60 Hz 400 W (420 VA) continuous rating Power consumption:

Current consumption: 4.2 A(100 V)

Operating temperature: +5°C to +40°C (41°F to 104°F) Approx. 29Kg (63 lb 15 oz) Mass: 424(W) \times 132(H) \times 575(D) mm (16 % \times 5 % \times 22 % inches) not including projecting parts Dimensions:

Recording Capacity: MAV-S100: 4.2 × 7 = 29.4 GB

MAV-S110: $9.1 \times 7 = 63.7$ GB

Input/Output

68-pin, female (2) SCSI:

RS-232C: Setup and firmware upgrade

with maintenance commands

ISR port

D-sub 25-pin, female (1)

Status out: Status report

(parallel, 3 outputs, operate, warning and error)

D-sub 15-pin, female (1)



MAV-S100



MAV-S100

MAV-1000/S1000/S1010 (Processor/Storage Units)

Multi Access Video and Audio Server

•Larage storage capability — 23 hours storage time with the MAV-1000 processor connected to five MAV-S1010 storage units, and 11 hours when connected to five MAV-S1000s •Expandable simultaneous multi channel I/O — up to eight SDI inputs/outputs, or up to six SDI inputs/outputs and one SDDI input/output •High-speed video/audio/data transfer rate •Direct control from the editor with VTR-like response •Independent file syst em •High-quality image compression •4-channel non-compressed audio •Excellent reliability — to assure 24-hour continuous operation in broadcast stations •Data protection •525/625 switchable operation •Continuous operation

System components: BKMA-1010, Input and Output Processor Board

BKMA-1020, Input Processor Board BKMA-1030, Output Processor Board

BKMA-1040, High Speed Input/Output Board (up to six BKMA-1010 units permissible with

BKMA-1040)

Specifications

General

Power requirement: AC 100 to 240V ±10%,

50/60 Hz

Current consumption: 14.5-6 A

(with eight BKMA-1010 board installed)

Operating temperature:

5°C to +40°C (41°F to 104°F) Approx. 100Kg (220 lb 7oz)

Mass:

(with eight BKMA-1010 board installed)

Dimensions: $424(W) \times 665(H) \times 542(D)$ mm ($16\sqrt[3]{4} \times 24\sqrt[4]{4} \times 21\sqrt[3]{8}$ inches)

Specifications of MAV-S1000/S1010

General

Power requirement: AC 100 to 240V, 50/60 Hz

Current consumption: 4.2 A(100V)

Operating temperature: $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ (41°F to 104°F) Mass: Approx. 29Kg (63lb 15oz) Dimensions: $424(\text{W}) \times 132(\text{H}) \times 575(\text{D})$ mm

(16 ¾ × 5 ¼ × 22 ¾ inches)

Data Capacity: MAV-S1000 : 4.2 × 7 = 29.4 GB

MAV-S1010 : 9.1 × 7 = 63.7 GB

Input/Output

SBX: Serial bus extension input

BNC type (2) 270Mbps, 75 ohms

RS-232C: RS-232C connector (ISR port)

D-sub 25-pin, female (1)

Status output: Status output

(parallel, 3-contact outputs : Operate, warning, and

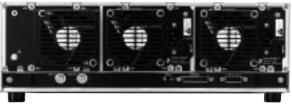
error)

D-sub 15-pin, female (1)



 $\begin{array}{c} \text{MAV-S1010} \times 5 \\ \text{MAV-1000} \times 1 \end{array}$





MAV-S1010

SIU-80

System Interface Unit

•Forms the core of a FlexSys system •Can accommodate up to eight BKSI Series boards •Continuous operation the redundant power supply unit can be hot-swapped to ensure power supply to the boards •Equipped with ISR (Interactive Status Reporting) •19-inch standard rack mountable and six rack units height

System components: BKSI-2010, Disk Controller Board

BKSI-2011, SDC Memory Board

BKSI-2020, Bit rateReduction Encoder Board

(4:2:2P@ML encoder)

BKSI-2030, Bit Rate Reduction Decoder Board

(4:2:2P@ML decoder) BKSI-2040, IDC CPU Board

BKSI-2050, Analog NTSC to 4:2:2 (SDI) Converter

Board

BKSI-2050P, Analog PAL to 4:2:2 (SDI) Converter

Board

BKSI-2060, 4:2:2 (SDI) to Analog NTSC Converter Board

BKSI-2060P, 4:2:2 (SDI) to Analog PAL Converter

Board

BKSI-2070, Audio A/D Converter Board BKSI-2080, Audio D/A Converter Board

Application Software Packages:

BZA-81, Copy Manager software

BZA-90, Time shift Transmission Manager software

BZA-900, Multi-Channel Manager software

Specification: GENERAL

Power requirements: AC100V~240V ±10% 50/60Hz

Power consumption: Max 400W

+5°C to +40°C (41°F to 104°F) Operation temperature: Humidity: 10~90% (no condensation) Dimensions: 424(W) × 265(H) × 470(D) mm

Mass:

INPUT/OUTPUT

REF VIDEO INPUT terminal(BNC):1 Input: /Active through output terminal :1

Others: REMOTE terminal (D-sub25PIN, female):1

VS-BUS terminal (BNC):1 /Active through output terminal :1





8

Data Storage System

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GW-730L/240S	127
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DIR-1000H/1000/1000M/1000L

Digital Data Recorders

•Conforms to the ANSI (American National Standard Institute) X3.175-1990 ID-1 format. •High-Density Recording — 96 GBytes per a large D-1 cassette and 43 GBytes per a medium D-1 cassette •Data rates for the DIR-1000 Series ranges from the maximum of 64 MBytes/sec to 1 MBytes/sec — up to 64 MBytes/sec for the DIR-1000H, 32MBytes/sec for the DIR-1000, 16MBytes/sec for the DIR-1000M, and 8MBytes/sec for the DIR-1000L •Versatile Remote Control System Interface: RS-422/485 (primary port), IEEE-488 (GPIB), and RS-232C •Built-in Diagnostics

Supplied accessories: Rack angle assemblies (2)

AC power cord (1) Plug holder (1) User's manual (1)

Optional accessories:

Cables

VCD-2D/5D/10D/30D (2/5/10/30m)

Digital video cable for data input/output signals

ECD-3C/10C/30C (3/10/30m)

Digital audio cable for annotation input/output

signals

EC-5XLR2/10XLR2 (5/10m)
Analog audio cable
RCC-5G/10G/30G (5/10/30m)
RS-422/485 Remote control cable

SMK-0032 (2m)

IEEE 488 (GPIB) interface cable

Rack mount kit RMM-18DV

Rack mount rail for use with supplied rack angle

assemblies

Tapes 19mm SD1 data cartrigo

19mm SD1 data cartrige SD1-1300L (96GBytes) and SD1-600M

(43GBytes) 19mm D-1 cassette

S-cassette (D1S-6), M-cassette (D1M-12/22/34)

and

L-cassette (D1L-76/94)





Specifications

		DIR-1000H	DIR-1000	DIR-1000M	DIR-1000L
General	Power requirements	100V to 120V/220V to 240V ±10%, 50/60Hz			
	Power consumption	650W	550W	450W	400W
	Operating temperature	10°C to 35°C (50°F to 95°F)			
	Mass (Approx)	70kg	67kg	62kg	58kg
ě		(154 lb 5oz)	(147 lb 11oz)	(136 lb 11oz)	(127 lb 14oz)
Ō	Dimension (W x H x D)	436 × 432.5 × 633.5mm			
	(Approx)	(17 ½ × 17 ½ × 25 ½ inches)			
		Including handles and feet			
	DATA INPUT	8 line pairs for data (ECL,NRZ)			
	(DS25/DS50)	(with clock, sync, parity)			
	DATA OUTPUT	8 line pairs for data (ECL, NRZ)			
e G	(DS25/DS50)	(with clock, sync, parity and error flag)			
(Connecter)	REF (reference) INPUT (D25)	clock and sync (ECL)			
Ĕ	ANNOTATION INPUT				
ၓၟႍ	CH-1/CH-2 (XLR 3-pin. female)	+4dBm, 600Ω, balanced			
signals	CH-1/CH-2 (XLR 3-pin. male)	Low impedance, balanced			
	MIC IN (Standard jack)	For ANNOTATION CH-1			
ᇗ	HEADPHONE OUT				
ă	(Standard jack)	For ANNOTATION CH-1			
Input/output	AUX (auxiliary)DATA				
르	INPUT/OUTPUT(D15S)	RS-422 Interface			
_	REMOTE 1/2 (D25S)	RS-232C interface			
	REMOTE 3	IEEE-488 (GPIB) interface			
	REMOTE 4/5 (D9S)	RS-422/485C (Primary) interface			

New

DIR-240/120

Digital Instrumentation Recorder

•The DIR-240 and DIR-120 are the new half-inch digital instrumentation recorders from Sony. •Large storage-capacity – 250 GBytes native capacity on one L-cassette and 74 GBytes per an S-cassette. •High-speed variable sustained data transfer rate up to 30 MBytes/sec for DIR-240 and 15 MBytes/sec for DIR-120. •Able to read DIR-240/120 tape on DTF-2 tape drive. •Provides a long recording time – 138 minutes per one L-cassette and 41 minutes on an S-cassette at 240 Mbps, and 276 minutes/L-cassette and 82 minutes/S-cassette at 120 Mbps. •High reliability •IRIG A or IRIG B time code interfaces available. •Compact design. •Mountable in PetaSite – the DMS-8400 Series tape robotic library.

Supplied accessories: Operation manual (1)

Specifications GENERAL

PERFORMANCE

Recording time:

Storage capacity (formatted):

Large cassette: 250 GBytes Small cassette: 74 GBytes 240 Mbps: 138 min/Large cassette 41 min/Small cassette 120 Mbps: 276 min/Large cassette

82 min/Small cassette

Data transfer rate: Variable rate IF: 0 to 240 Mbps (DIR-240) 0 to 120 Mbps (DIR-120)

SCSI IF: 30 MBytes/sec (sustained) (DIR-240) 15 MBytes/sec (sustained) (DIR-120)

Bit error rate: 1 x 10E-13 bit or less Recording media: 1/2" metal particle tape

L-cassette: DI-250GL (250 GB) S-cassette: DI-74GS (74 GB)

INTERFACE

Data: 8-bit parallel I/O: 8-bit parallel ECL differential

SCSI: Ultra Wide Differential SCSI
Time code: IRIG A or IRIG B (AC code) (BNC)
Remote: RS-422A or RS-232C (D-sub 25-pin)
RS-232C x 2 (D-sub 25-pin)

10Base-T Ethernet



New

GY-8240 Series

DTF-2 Tape Drive

•The GY-8240 Series is a DTF-2 format tape drive. •Two models are available – the GY-8240UWD featured with Ultra Wide Differential SCSI and the GY-8240FC with Fibre Channel. •High-capacity data storage – 200 GBytes native capacity and 518 GBytes ALDC compressed on one L-cassette. •Fastest-speed data recording at 24 MBytes/sec. •Fast data access with Sony Tele-File system. •Read compatibility with DTF-1 tape drive. •Powerful error correction capability – a very low bit error rate at 1 x 10E-17 or less. •Excellent reliability. •A clear migration path to even higher performance.

Supplied accessories: Operation manual (1)

Specifications

. General

Power requirements:
Power consumption:
Operating temperature:
Operating humidity:
Mass:
Dimensions:

AC 100 to 240 V, 50/60 Hz
100 V 2.6 A, 240 V 1.1 A
5 to 40°C (41 to 104°F)
20 to 80% (Non-condensing)
23 kg (50.71 lb)
315(W) x 220(H) x 486(D) mm
(12 1/2 x 8 3/4 x 19 1/8 inches)
(Excluding protruding parts)

Performance

Format: DTF-2 Digital Tape Format
Recording media: 1/2-inch metal particle tape
Storage capacity: Large size cassette –

200 GBytes (Formatted, uncompressed) 518 GBytes (Compression factor 2.59 to 1) Small size cassette – 60 GBytes (Formatted, uncompressed)

155 GBytes (Compression factor 2.59 to 1)

Recording Format: DTF-2 Format

Data transfer rate: GY-8240UWD –

40 MBytes/s (Burst), 24 MBytes/s (Sustained)

GY-8240FC -

100 MBytes/s (Burst), 24 MBytes/s (Sustained)

Bit error rate: 1 x 10E-17 bit or less

Head life: Typically greater than 5,000 hours (100% duty cycle)

Drive reliability: MTBF 200,000 hours

Read or write & rewind 20,000 passes

(Note: One pass is one trace on the same part of the

tape)

Search speed: 1.4 GBytes/sec

Interface: Ultra Wide Differential SCSI x (1)

(For GY-8240UWD)

Fibre Channel x (1) (For GY-8240FC)

Ethernet port x (1) RS-232C port x (2)

Media: Advanced metal particle 1/2-inch DTF-2 tape

cassette

L-cassette: GW2-200GL (200 GB) S-cassette: GW2-60GS (60 GB)



GY-2120

DTF Tape Drive

•SONY DTF (Digital Tape Format) •High density — 42GBytes/cassette •High speed — data transfer rate of 12Mbytes/sec (sustained) •High reliability with a diecast aluminum allov transport mechanism and automatic cleaning system •Powerful error correction capacity with 32% of Error Correction Code •Proven high-density recording technology •Optional compression mode •Compact, lightweight and low power consumption •Conforms to ECMA 248

Specifications

Head Life:

Format DTF-1 Digital Tape Format Recording Media: 1/2-inch Metal Particle tape

Storage Capacity: Large size cassette: 42GBytes (formatted,

uncompressed) 108GBytes (Compression factor 2.59:1)

Small size cassette: 12GBytes (formatted,

uncompressed)

31GBytes (Compression factor 2.59:1)

ECMA-248 (12.65mm Wide Magnetic Tape Cassette Interchange Standard:

for Information Interchange-Helical Scan Recording

– DTF-1) ISO/IEC15731 Data Transfer Rate: 12MBvtes/sec (sustained) Bit Error Rate: Better than 1 x 1017 bits Typically greater than 5,000 hours

MTBF 200,000 hours Drive Reliability:

Read or write & rewind 20,000 passes

(One pass is one trace on the same part of the tape)

Search Speed: 300MBvtes/sec

SCSI-2 Fast/Wide Interface:

(Differential or Single-Ended) 315(W) × 220(H) × 486(D) mm Dimensions:

(excluding protruding parts) (12 ½ × 8 ¾ × 19 ½ inches) Less than 18kg (39.7 lbs)

Mass: Power Sources: AC 90 to 264V, 50/60Hz ±10% **Current Consumption:** AC 100 to 240V; 2.0 to 0.8A

Power Consumption: 200W

Safety Regulations: UL 1950, CSA C22.2 No.950, EN 60950 **EMC Regulations:** FCC Class B, IC Class B, VCCI-2, EMI=EN55022 Class B, EMS=EN50082-1

Media: Advanced metal particle, 1/2-inch DTF tape cassette

GW-730L (DTF L-size cassette) GW-240S (DTF S-size cassette) GW-90CL (DTF S-size cleaning cassette) GW-90LCL (DTF L-size cleaning cassette)





DMS-8800

PetaSite, Digital Mass Storage System

•Designed for the data storage system from 6.8 Tera Bytes to 3 Peta Bytes •Accommodates the DIR-1000 Series tape drives and SD1 media •Offers transfer rates from 64 MBytes/sec to 1 MBytes/sec and capacities up to 96 GBytes/cassette •High reliability •Optical elevator control •PetaSite Controller Software (PSC) — allowing users to monitor system and drive utilization via a convenient graphical user interface •Fully automated cassette input/output via a "mail box" style mechanism •Bar Code Management •Each PetaSite is a user-configurable system composed of four basic building blocks.

System components: Basic Console (DMS-8800B)

Features: Control, robotics system, cassette input/output ports. Data capacity: 0.6Tbytes

Tape Drive Console (DMS-8800D)

Features: Cassette storage and drive space for 3 DIR-1000 Series tape drives. Data capacity: 6.2TBytes

Cassette Console (DMS-8800C)

Features: Primary storage module capable of 120 SD1 cassettes Data capacity: 9.8TBytes

Junction Console (DMS-8800J)

Features: Provides flexibility in system layout, robotics system and cassette input/output ports.

input/output ports.
Data capacity: 0.6TBytes

Specifications of DMS-8800

Maximum data capacity 6.8 TBytes to 3.0 PBytes (uncompressed)

Access time Tape load: Average 60s
Tape transfer: Max 2m/sec
Cassette access Random or sequential

MCBF More than 500,000 MTTR 30 minutes

Power sources AC 100V, 120V, 220V, 240V, 50/60Hz



Specifications of DMS-8800B/8800D/8800C/8800J

Console Module Name	Basic Console DMS-8800B	Tape Drive Console DMS-8800D	Cassette Console DMS-8800C	Junction Console DMS-8800J
Function	Control, robotics system and cassette input/output	Tape drives and cassette storage	Primary cassette storage	Provides flexibilty in system layout
Data Capacity	0.6TBytes	6.2TBytes	9.8TBytes	0.6TBytes
Interface	RS232C	_	_	_
No. of tape drives	_	3 drives	_	_
Mass (Without tapes & drives)	Approx. 400kg (882 lbs)	Approx. 450kg (992 lbs)	Approx. 310kg (683 lbs)	Approx. 430kg (948 lbs)
Dimensions (W/H/D)	1000 × 2,040 × 896 mm	896 × 2,040 × 1,520 mm	896 × 2,040 × 896 mm	1000 × 2,040 × 896 mm
	(39 % × 80 % × 35 % inches)	$(35 \% \times 80 \% \times 59 \% \text{ inches})$	(35 % × 80 % × 35 % inches)	(39 % × 80 % × 35 % inches)

DMS-8400

PetaSite Digital Mass Storage System

•Scaleable systems with its modular configuration from 5.4TByte to 2PByte native capacity •Houses the GY-2120 tape drive and GW-Series DTF cassettes •Superlative reliability with a new type of universal robotics hand and a new sensing system •Uses infra-red communication between the robotics hand and the commander to enhance reliability •Adopts Mail Box System — an unique cassette loading mechanism for easy cassette loading •Incorporated with MMT (Monitoring & Maintenance Terminal) Function remotely monitors both the tape library and the tape drive •Compliant to PetaServe Software for Hierarchical Storage Management •Each PetaSite is a user-configurable system composed of four basic building blocks.

System components:

Basic Console (DMS-8400B)

Features: Control, robotics system, cassette input/output ports. Data capacity: 0.6TBytes

Tape Drive Console (DMS-8400D)

Features: Cassette storage and drive space for 3 DIR-1000 Series tape drives. Data capacity: 4.8TBytes

Cassette Console (DMS-8400C)

Features: Primary storage module capable of 120 SD1 cassettes. Data capacity: 7.5TBytes

Junction Console (DMS-8400J) Features: Provides flexibility in system layout, robotics system and cassette

input/output ports. Data capacity: 0.6TBytes

Specifications of DMS-8400

Maximum Data Capacity: 5.4TBytes to 2.3PBytes (Uncompressed)

14.0TBytes to 6.0PBytes (Compression factor

Access Time: Tape load - Average 60s

Tape transfer - Max. 2m/sec

Maximum number of DTF Tape Drives: 1 to 828 units

Cassette Access: Random or sequential

Interface:

SCSI-2 Fast and Wide standard and

API optional (Differential) More than 500,000

MCBF: MTTR: 30 minutes

AC 100V, 120V, 220 to 240V, 50/60Hz Power Sources:



Specifications of DMS-8400B/8400D/8400C/8400J

•					
Console Module Name	Basic Console DMS-8400B	Drive Consloe DMS-8400D	Cassette Console DMS-8400C	Junction Console DMS-8400J	
	DIVIS-0400B		DIVIS-0400C		
Function	Tape load/unload	Write/read, tape storage	Tape storage	Tape Transfer, Tape load/unload	
Data Capacity	0.6TB/15 cassettes	4.8TB/115 cassettes	7.5TB/180 cassettes	0.6TB/15 cassettes	
Power Consumption	3,000VA	850VA (with 4 tape drives)	_	3,000VA	
Mass	380Kg (837 lbs)	400Kg (882 lbs)	270Kg (595)	410Kg (926 lbs)	
Wass Soung (637 lbs)		(excluding tapes & tape drives)	(excluding tapes)	410Ng (926 lbs)	
Dimensions (W/H/D)	1000 × 2,040 × 770 mm	896 × 2,040 × 1,350 mm	896 × 2,040 × 770mm	960 × 2,040 × 770 mm	
	(39 3% × 80 3% × 30 3% inches)	(35 3% × 80 3% × 53 1/4 inches)	(35 % × 80 % × 30 % inches)	(37 % × 80 % × 30 % inches)	

DMS-B35

Digital Mass Storage System

•A data storage management system designed to be used with the GY-2120 •Up to 1.47TBytes native capacity (3.81TBytes with compression) •35 large (42GByte) or 70 small (12GByte) cassettes integrated with one GY-2120, or 30 large (42GByte) or 60 small (12GByte) cassettes with two GY-2120 units •Transfer rate doubled to 24MBytes/sec when used with two GY-2120 units •Sequential or random access modes •RS-232C/422 interface and SCSI-2 Fast/Wide interface •Powerful built-in self-diagnostics capability

•Cassette access and interchange in under 6 seconds

•Compliant to PetaServe Software for Hierarchical Storage Management

Specifications

Storage Capacity: Large cassette \times 35 = 1470GBytes (Uncompressed)

3807GBytes (Compression factor 2.59:1) or Small cassette \times 70 = 840GBytes (Uncompressed) 2176GBytes (Compression factor 2.59:1) (when integrated with one GY-2120)

Cassette Access Time: Within 6 seconds

Maximum number of DTF drives:

2 units

Cassette Access: Random or sequential

Interface: RS-232C/422 standard and SCSI-2 Fast and Wide

optional (Differential or Single-Ended) Dimensions:

600 (W) × 1100(D) × 1980(H) mm

 $(23 \frac{5}{8} \times 43 \frac{3}{8} \times 78 \text{ inches}) (w \times d \times h)$ 328kg (723.12 lbs.) (with one tape drive) Mass:

356kg (784.84 lbs.) (with two tape drive)

Mounting: Standalone or optional rack mount AC 90 to 264V, 50/60Hz ±10% Power Sources: Power Consumption: 800W Max. (with one tape drive)

1,000W Max. (with two tape drives)



DMS-24

Versatile Cassette Storage Console

•Accommodates one DIR-1000 Series tape drive and 24 cassette storage bins or two tape drives and 16 cassette storage bins •High capacity and high storage density •Comprehensive remote control available via a RS-232C or RS-422 interface or SCSI-2(option) interface •Built-in diagnostics and error reporting available •A comprehensive diagnostic system to detect an operation error or hardware fault.

Specifications

Data storage capacity:

Cassette console capacity (D-1/SD1 cassettes):

24 L/M-cassettes or 48 S-cassettes

Tape drive console capacity (DIR-1000 series):

1 or 2

Storage density per square meter (per square foot):

3.5TBytes (320GBytes)

Access time: Less than 6 seconds

AC100-120V or AC220-240V, 50/60Hz Power requirements:

Power consumption (without tape drives):

1kVA

Operating temperature: 10°C to 30°C (50°F to 86°F) 25% to 80% (non-condensing) Operating humidity:

Mass (without tape drives and cassettes): 300kg (661lb 6oz)

600(W) × 1980(H) × 1090(D) mm (23 % × 78 × 43inches) Dimensions:



DMS-B9

Auto Loader

•A compact auto loader specially designed for small scale data storage management as a peripheral to the GY-2120 •Up to 378GBytes native capacity (979GBytes with compression) •Nine large (42GByte), or nine small (12GByte) 1/2 inch DTF cassettes, or any nine of them •Sequential or random access modes •Standard SCSI-2 Fast/Wide interface •Powerful built-in self-diagnostics capability •Cassette access and interchange in under 20 seconds •Compliant to PetaServe Software for Hierarchical Storage Management

Specifications

Dimensions:

Storage Capacity: Large cassette \times 9 = 378GBytes (Uncompressed)

979GBytes (Compression factor 2.59:1) or Small cassette × 9 = 108GBytes (Uncompressed) 280GBytes (Compression factor 2.59:1)

Cassette Access Time: Within 20 seconds (Average)
Cassette Access: Random or Sequential
Interface: SCSI-2 Fast and Wide
(Differential or Single-Ended)

424 (W) × 850(D) × 660(H) mm (16 ³/₄ × 33 ¹/₂ × 26 inches) (w × d × h)

Mass: 58 Kg (127.87 lbs.)

Mounting: Standalone or optional rack mount
Power Sources: AC 90 to 264V, 50/60Hz ±10%
Power Consumption: 80W (with tape drive)

Small cassette 280GBytes (C Within 20 second Random or Se SCSI-2 Fast and (Differential or 424 (W) x 850 (16 ¾ x 33 ½ 58 Kg (127 87



DFC-1500

Data Recorder Controller with SCSI Fast Interface

•Supports a range of user-selectable rates for transferring data to DIR-1000L •Incorporates a SCSI-2 Fast interface to provide assured connectivity •Logical tape format using the ANSI ID-1 format as the fundamental media format •Provides fast, reliable data access by maintaining a comprehensive Directory Information Table (DIT) at the tape header •Supports a sophisticated automatic read/write retry algorithm for maximum data assurance •Supports both synchronous and asynchronous transmission modes •Maximum data transfer rate of 10MBytes/sec in the synchronous mode and 4MBytes/sec in the asynchronous mode •Accommodates both single-ended and differential SCSI input/output configurations •Incorporates a 32MByte buffer memory •Offers a comprehensive diagnostics and error reporting capability.

Supplied accessories: Operation manual (1)
Rack mount angles (2)

Specifications GENERAL

Power requirements: AC100V to 120V/220V to 240V ±10%, 50/60Hz

Power consumption: Approx.100W

Operating temperature: 5°C to 40°C (41°F to 104°F)

Mass: Approx.10.5kg (23lb 2oz)

Dimensions: 424(W) × 88(H) × 422(D) mm

(16 ³4 × 3 ½ × 16 ⁵½ inches)

INPUT/ OUTPUT SIGNALS

SCSI (Single-ended/Diffential):

50-pin (2)
Data input (from DIR): D-sub 25-pin
Data output (to DIR): D-sub 25-pin
Diagnostic: D-sub 9-pin, RS-232C
Remote (for DIR): D-sub 9-pin, RS-422





DFC-1700

Data Recorder Controller with SCSI Wide Interface

 Supports a range of user-selectable rates for transferring. data to DIR-1000M •Incorporates a SCSI-2 Fast and Wide interface to provide assured connectivity. Logical tape format using the ANSI ID-1 format as the fundamental media format •Provides fast, reliable data access by maintaining a comprehensive Directory Information Table (DIT) at the tape header •Supports a sophisticated automatic read/write retry algorithm for maximum data assurance •Supports both synchronous and asynchronous transmission modes •Maximum data transfer rate of 20MBytes/sec in the synchronous mode •Accommodates both single-ended and differential SCSI input/output configurations •Incorporates a 128MByte buffer memory •Offers a comprehensive diagnostics and error reporting capability.

Supplied accessories: Operation manual (1)

Rack mount angles (2)

Specifications GENERAL

Power requirements: AC100V to 120V/220V to 240V ±10%, 50/60Hz

Power consumption: Approx.180W

Operating temperature: 5°C to 40°C (41°F to 104°F) Mass: Approx.17kg (37lb 7oz) Dimensions: 424(W) × 88(H) × 520(D) mm

 $(16 \frac{3}{4} \times 3 \frac{1}{2} \times 20 \frac{1}{2} \text{ inches})$

INPUT/ OUTPUT SIGNALS

SCSI (Single-ended/Diffential)

68-pin (2) Data input (from DIR): D-sub 25-pin D-sub 25-pin Data output (to DIR): Diagnostic:

D-sub 9-pin, RS-232C Remote (for DIR): D-sub 9-pin, RS-422A





DFC-1800/1800N

Variable Rate Buffer

•The DFC-1800 accommodates user data rates from 0 to 64 MBits/sec when used in conjunction of the DIR-1000L, while the DFC-1800N, equipped with a larger buffer memory, accommodates user data rates up to 256MBits/sec with the DIR-1000 •Suitable for a variety of real-time data acquisition applications •Effectively matches the user's data rate with one of the fixed data rates supported by the DIR-1000 Series recorder in use •Choice of both parallel (8 bit data + clock) and serial bit stream input/output data interfaces

•Accommodates an IRIG-A or IRIG-B time code channel Provides a Write Retry Function for maximum data assurance •Incorporates a comprehensive diagnostics and error reporting capability.

VCD-2D, digital data cable (2) Supplied accessories:

RCC-5G, RS-422 cable (1) D-sub 15-pin cable (1)

Specifications GENERAL

Power requirements: 100 to 120V/220V to 240V ±10%, 50/60Hz

Power consumption: Approx.120W

10°C to 35°C (50°F to 95°F) Operating temperature: Approx. 12kg (26lb 7oz) Mass:

Dimensions: $424 \times 100 \times 645$ mm (16 $\frac{3}{4} \times 4 \times 25 \frac{1}{2}$ inches)

INPUT/OUTPUT SIGNALS

D-sub 25-pin, 8bit parallel, ECL differential Data: Input 1

BNC, bit serial, ECL differential Input 2

D-sub 25-pin, 8bit parallel, ECL differential Output 1 BNC bit serial FCI differential

Output 2 BNC, IRIG-A or IRIG B, AC code Time code: Input 1 BNC, IRIG-A or IRIG B, AC code Output 1

Remote: Remote 1 24pin, GP-IB

Remote 2 D-sub 25-pin, RS-232C





For DIR-1000 Series data recorders

Data input D-sub 25-pin, 8bit parallel, ECL diffential Data output D-sub 25-pin, 8bit parallel, ECL diffential

Auxiliary D-sub 15-pin, RS-422A Remote D-sub 9-pin, RS-422A

SD1-600MA/1300LA

Digital Data Cartridge

•The highest quality recording media for use with the DIR-1000 Series tape drives •A superior digital data grade media for high speed instrumentation and computer data applications •Offers improved friction characteristics maintaining the lowest possible error rate with repeated usage characteristic of computer data storage •Additional robustness and better protection available for the cassette shell over a wider range of environmental conditions •SD1-600M provides a maximum of 43GBytes while the SD1-1300L provides capacity for up to 96GBytes (unformatted)

SIGNY ENGLER OF STATE



Specifications

SD1-600M

 $\begin{array}{lll} \text{Storage capacity:} & 43\text{GBytes} \\ \text{Tape width:} & 19.010\text{mm} \\ \text{Tape thickness:} & 15.3\text{mm} \\ \text{Tape length:} & 604\text{m} \\ \text{Dimensions:} & 254 \times 150 \times 33\text{mm} \end{array}$

Mass (including case): 1.03kg

SD1-1300L

Storage capacity: 96GBytes
Tape width: 19.010mm
Tape thickness: 15.3mm
Tape length: 1330m

Dimensions: $366 \times 206 \times 33$ mm

Mass (including case): 2.67kg

GW-90CL(S-size)/90LCL(L-size)

Head Cleaning Videocassette Tape for GY-2120



GW-730L (DTF L-size cassette)/ 240S (DTF S-size cassette)

1/2 inch DTF cassette

•Advanced metal partical, 1/2 inch DTF cassette for the GY-2120 •High durability — a new Hyper Lubricant protects the tape surface and controls the friction coefficient •Robust tape structure with excellent tensile strength •Long-term data preservation with new Sony HDA (High Density Alloy) magnetic particles •Low deformation with narrow tracks •Dust protection for outstanding reliability

Specifications: GW-730L

Storage capacity: 42GBytes Tape width: Tape thickness: 12.65mm 14um 731m Tape length:

 $254\times145\times25\text{mm}$ Dimensions:

Mass (no case): 536g

GW-240S

Storage capacity: 12.8GBytes Tape width: 12.65mm Tape thickness: 14µm Tape length: 241m

Dimensions: $156\times96\times25mm$

Mass (no case): 193g



D1M-12CLA

Head Cleaning Videocassette Tape for DIR-1000 Series

FZC Series

PetaServe/PetaBack

•FZC Series is a hierarchical storage management (HSM)/backup software. •Establishing the superb performance of DTF tape drives at a rate of 24 Mbvtes/second of data transfer. •Supporting a flexible storage system, ranging from TBytes to PBytes, with PetaSite' – a tape robotic library for mass data storge. •An ability to build-up a distributed environment between the server and the client. •A flexible data storage policy, defined by the System Administrator. •Transparency of use. The user is not aware of file migration or the type of storage media. •Supporting for various UNIX operating systems such as Solaris, Digital-UNIX, AIX, and HP-UX (scheduled). •Operational maintenance (such as database and bitfile backup, and tape compaction) is almost fully automatic. •Data backup to protect against accidents. PetaServe includes PetaBack, an automated system for backing up files in the event of hard disk crash. •A Direct Device Access function. This DDA function takes full advantage of the highspeed performance of DTF. Data can be called directly from tapes without passing via the PetaServe hard disk.

Software and Manuals

PetaServe CD-ROM and User's Guide FZC-HS1

FZC-OMJ/OME User's Guide

PetaBack CD-ROM and User's Guide (scheduled) FZC-BS1

PetaServe licenses (vl.30 as of February 1999)

Migration Client Licenses

FZC-MCDS5 MFS 0-5 GB FZC-MCDS25 MFS 0-25 GB FZC-MCDS100 MFS 0-100 GB FZC-MCDS500 MFS 0-500 GB FZC-MCDS1TB MFS 0-1 TB

Store License

MSS (Mass Storage Server) license FZC-ST1

Media Server Licenses

for DMS-B35 Library FZC-LB35

FZC-LB8400B for DMS-8400B (PetaSite basic console) FZC-LB8400C for DMS-8400C (PetaSite cassette console) FZC-LB8400D for DMS-8400D (PetaSite drive console)

FZC-LB9 for DMS-B9 Library

FZC-EX1 for EXABYTE 120/440/480 Library

FZC-HX1 for HP-MO (20XT/40T/200T40st/80st/100st) Library

FZC-VL1 for Virtual Library

DDA License

FZC-DDA DDA (Direct Device Access) license

Backup Client License

PetaBack client license (5 host license)

Database Hot Backup License

FZC-DB1 Database hot backup license

9

Cameras

HDC-700A130	RCP-740/741	
HDC-750A131	CA-905K/905F	
HDCA-750A132	BKP-9057	
HDCU-700A133	RM-P9	
HKCU-701A134	RM-B150	
HKCU-702134	BVF-7700/7700P	
HKCA-700135	BVF-77/77CE	
HDVF-700136	BVF-55/55CE	
HDVF-500136	BVF-20W/20WCE	
HDVF-20137	BVF-10/10CE	
BVP-900/900P138	BVF-C10W	
BVP-950/950P140	VFH-770	
OHB-750A/750AP142	VFH-550	165
OHB-750WSA/750WSAP142	CA-553	165
OHB-730/730P142	CAC-6	165
OHB-730WS/730WSP142	CAC-12	166
BVP-570144	RMM-301	166
OHB-450A/450AP145	BKDW-701	166
OHB-451/451P145	BKP-5530	166
OHB-455WS/455WSP145	BKP-7090	167
OHB-550/550P145	BKP-7091	167
OHB-550WS/550WSP145	BKP-7900	
OHB-T450WS/T450WSP147	BKP-7910/7910P	167
CA-570/570P148	BKP-7911	168
CA-550/550P149	BKP-7912	168
CA-530150	BKP-7930	
CCU-700A/700AP151	BKP-7931/7931P	168
CCU-550/550P152	BKP-7932	169
CNU-700153	BKP-7933	169
CNU-500154	BKP-590	169
MSU-700A154	BKP-5090	169
MSU-750155	BKP-5091	170
VCS-700155	BKP-5972	170
ARU-701/701P156	BKP-5973	170
ARU-702/702P157	BKP-5974	170
RCP-700/701157	BKP-5976/5976P	171
RCP-720/721158	BKP-L551	171
RCP-730/731158	BKP-7934	171

HDC-700A

3-chip CCD Studio/OB Camera System

•Multi-purpose studio/OB camera for high-end video production and broadcasting •2/3-inch, 2.2 million pixels of CCD imager •16:9/4:3 switchable on its viewfinder •Excellent signal-to-noise ratio of 54dB •Wide dynamic range of 600 % •High sensitivity of F8.0 at 2000 lx •High horizontal resolution of 1000 TV lines •Automatic set-up •Five positions of ND-CC filters •Electronic shutter function •Electric clear scan •360degree skintone detail control function •Skin tone saturation control function •Variable linear matrix •Fully compatible with Sony's New Generation Camera Control Units •Optical fiber transmission system enables high quality video transfer at a long distance •Advanced filing system with MSU-700 •Low profile body design •Viewfinder lock system •VF menu display •Various display function on its viewfinder such as box cursor, center marker and safety zone •Rotary type optical fiber connector •Various input/output connectors and optional accessories •Both HD lens and NTSC lens can be used

*This model is used for HD/NTSC system.

Supplied accessories: Angle adjustment fittings (2)

Front cover (1)

Number plate for up tally (1)

for side panel (2) for rear panel (1)

Belt for cable clamp (2) Microphone connector (female, 1)

Extension board (1) Operation manual (1)

Optional accessories: HDVF-700, 7-inch HD B/W viewfinder

VFH-770, 7-inch viewfinder sport hood for HDVF-700

Recommended equipment:

HDCU-700A, HD Camera control unit

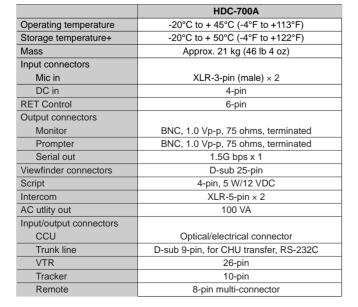
MSU-700, Master setup unit

RCP-741/740/731/730/721/720/701/700, Remote

control panel

RM-B150, Remote control unit VCS-700, Video selector

CNU-700/500, Camera command network unit







HDC-750A

3-chip CCD Studio/OB Camera System

•HDC-700A's full companion studio/OB portable camera •Same 2/3-inch, 2.2 million pixels of CCD imager as HDC-700A •16:9/4:3 switchable on its viewfinder •Excellent signalto-noise ratio of 54dB •High sensitivity of F8.0 at 2000 lx •High horizontal resolution of 1000 TV lines •Automatic adjustment and memory of black balance and white balance •Four positions of ND-CC filters •Electronic shutter function •Electric clear scan •Electric video gain-up function •360degree skintone detail control function •Detail boost frequency control function •H/V ratio control function •White/black limitter function •Skin tone saturation control function •Variable linear matrix •Fully compatible with Sony's New Generation Camera Control Units •Easy menu based settings with rotary controller •Wide variety of viewfinder display options •Optical fiber transmission system enables high quality video transfer at a long distance •Advanced filing system with MSU-700 •Both HD lens and NTSC lens can be

*This model is used for HD/NTSC system.

Supplied accessories: Shoulder strap (1)

VCT-14, Tripod adaptor (1)

Rain cover (1)

Cap for mic connector (1) Cap for 50-pin connector (2) 3.0 mm wrench (1) EX-512, Extension board (1)

Operation manual (1)
Maintenance manual (1)

Optional accessories: HDCA-750A, HD Camera Adaptor

HKCA-700, Build-up unit HDVF-20, 2-inch B/W viewfinder HDVF-500, 5-inch B/W viewfinder

VFH-550, 5-inch viewfinder sport hood for HDVF-500 HDVF-700, 7-inck B/W viewfinder (HKCA-700 required) VFH-770, 7-inch viewfinder sport hood for HDVF/700

BKW-L401, Viewfinder rotation bracket LC-303SFT, Soft case

Recommended equipment:

HDCU-700A, HD Camera control unit

MSU-700, Master setup unit

RCP-741/740/731/730/721/720/701/700, Remote

control panel

RM-B150, Remote control unit VCS-700, Video selector

CNU-700/500, Camera command network unit



	HDC-750A	
Power requirements	DC 12 V (10.5 to 17 V)	
Power consumption	27W	
Operating temperature	-20°C to +45°C (-4°F to +113°F)	
Storage temperature	-20°C to +50°C (-4°F to +122°F)	
Mass	Approx. 2.6 kg (5 lb 11 oz)	
Input connectors		
Mic in	XLR-3-pin (female)	
Output connectors		
Test out	BNC type	
Input/output connectors		
Viewfinder I/F	20-pin	
Lens	12-pin	
Camera adaptor I/F	68-pin × 1	

HDCA-750A

Camera Adaptor for HDC-750A

•Furnished with a Optical fiber cable interface for use with the HDCU-700A Camera Control Unit •High picture quality is provided through Y/PR-Y/PB-Y transmission •Prevention of electrical shocks—when the power connection is unsafe, the power supply from the HDCU (camera control unit) will be shut off •Wide variety of input/ouput connectors

*This model is used for HD/NTSC system.

Supplied accessories: BKP-L551, Battery adaptor (1)

Battery attachment accessories (1)

CN-1292 board, MIC connector (2)

Battery spacer (1)

Guard (1) +B2.6 x 5 Screw (1)

Precision screw (1) M4 x 6 Allen screws (3) M4 x 16 Allen screws (2) Operation manual (1) Maintenance manual (1)

CAC-6, Return video selector Optional accessories:

DC-300, Battery case for BP-90A

Specifications

General

Operating temperature: -20 °C to +45 °C (-4 °F to +113 °F) -20 °C to +50 °C (-4 °F to +122 °F) Storage temperature:

Mass: Approx. 2.7 kg (5 lb 15 oz) External dimensions: $133(W) \times 213(H) \times 192(D) \text{ mm}$

 $(5 \frac{1}{4} \times 8 \frac{1}{2} \times 7 \frac{7}{8} \text{ inches})$

Input/Output connectors

MIC 1 and 2 IN: XLR-3-pin (Male), 600 Ω , balanced DC IN: XLR-4-pin, 10.5 V to 17 VDC DC OUT: 4-pin, 10.5 to 17 VDC, max. 200 mA

GENLOCK/PROMPTER OUT

BNC type, 1.0 Vp-p, 75Ω 6-pin

RETURN CONTROL: EARPHONE: . Mini jack, 8 Ω SERIAL OUT: BNC type

EXTERNAL I/O: 50-pin for HKCA-700 I/F

12-pin CAMERA I/F: 68-pin

26-pin (CCZ type) VTR: CCU: Optical fiber connector

XLR-5-pin INCOM 1 and 2: RCP: 8-pin



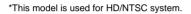


HDCU-700A

HDVS

Camera Control Unit for HDC-700A/750A series

•Incorporating a downconverter unit, HDCU-700A can output both 1125i component serial digital and 525i component serial digital siganals •With optional boards installed, HDCU-700A can output 525i composite serial digital and 525i analog composite/component signals •525i image enhancer is incorporated •Optical digital fiber transmission system can transfer audio/video signals at a distance •By connecting together 250 m (820 ft) cables, signals can be transferred up to maximum 3000 m (9840 ft) • External reference signals •Internal upconverter for return video signals •Two independent channels of intercom and Support wide range of Intercom system; 2W, 4W and CLEARCOM™ •Safty-oriented power supply



Supplied accessories: AC power cord (1)

Plug holder for the AC power cord (1)

Number plate (1 set) Operation manual (1) Maintenance manual (1)

Optional accessories: FC2-PD250, Optical fiber cable (250 m)

FC2-PD50, Optical fiber cable (50m) HKCU-701A, NTSC encoder board HKCU-702, HD analog interface board

Extension board



Power requirements	AC 100/110-120/220-240 VAC, 50/60Hz	
Power consumption	Approx. Max 500 VA at entire system active	
Operating temperature	+5 °C to +45 °C (+41 °F to +113 °F)	
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)	
Mass	Approx. 20 kg (44 lb 1 oz)	
Dimensions	424(W) x 133(H) x 460(D) mm	
	(16 3/4 x 5 1/4 x 18 1/8 inches)	
Camera	Optical fiber connector (1), 1.5Gbps SDI x2, 240V AC power supply	
INTERCOM/TALLY/PGM	19-pin composite connector, BTA-S1005 standard, KPT 02E14	
	INCOM: 4W, 2 system (PD/ENG), 0dB	
	PGM: 2 system, 0 dB/-20 dB	
	TALLY (R,G): TALLY contact	
RTS IN/OUT	XLR-3-pin, male and female (one each), 0.4 Vp-p, 200 Ω (CLEARCOM level)	
RCP/CNU REMOTE	8-pin multi-connector (1)	
TRUNK LINE	D-sub 9-pin, female (1), RS-232C, for CCU system expansion	
AC IN	100 to 120, 220 to 240 VAC swithchable	
HD SERIAL RET INPUT	"BNC type (4), SMPTE-292M	
HD REFERNCE INPUT	BNC type (1), loop-through output, SMPTE-240M 3-value SYNC, 0.6 Vp-p, 75 Ω	
PROMPTER IN	BNC type (1), loop-through output, SMPTE-292M analog signal, 1.0 Vp-p, 75 Ω	
SD SERIAL RET INPUT	BNC type (4), SMPTE-259M, 0.8 Vp-p, 75 Ω, 143 Mbps or 270Mbps bit rate	
SD REFERNCE INPUT	BNC type (1), loop-through output, composite SYNC/BB/VBS	
MIC OUT	XLR-3-pin, female (2), 0 dBs/-20 dBs	
DIGITAL AUDIO OUTPUT	BNC type (1), AES/EBU format	
CHARACTER OUT	BNC type (1), 525 black and white, 210 mVp-p (characters), 300 mVp-p (sync)	
MIC REMOTE	D-sub 15-pin, female (1)	
WF REMOTE	D-sub 15-pin, female (1)	
HD SERIAL OUTPUT	BNC type (1), SMPTE-292M, 0.8 Vp-p, 75 Ω, 1.5 Gbps bit rate	
HD SERIAL MONI OUTPUT	BNC type (1), SMPTE-292M, 0.8 Vp-p, 75 Ω, 1.5 Gbps bit rate	
SD SERIAL OUTPUT	BNC type (4), SMPTE-259M, 0.8 Vp-p, 75 Ω, 143 Mbps or 270 Mbps bit rate	
SD SYNC OUTPUT	BNC type (1), composite sync, 0.286 Vp-p, 75 Ω	
HD SYNC OUT	BNC type (1),SMPTE-240M, 3-value sync, 0.6 Vp-p, 75 Ω	

HKCU-701A

Digital rate converter for CCU-700A

•By slotting the HKCU-701A, serial digital conponent (NTSC) or serial digital composite (NTSC) signal can be output from HDCU-700A (selectable) •Analog composite (NTSC) or analog RGB/Y, P_B, P_R can be output (selectable) •Equipped with serial digital composite/analog composite (NTSC) return input connector

*This model is used for HD/NTSC system.

Specifications

General

Operating temperature: +5 °C to +40 °C (+41 °F to +104 °F) Storage temperature: -20 °C to +60 °C (-4 °F to +140 °F) Mass: Approx. 1.1 kg (2 lb 6 oz)

Input connectors

RET Input: BNC type (4), 1.0 Vp-p, 75Ω

Output connectors

VBS out: BNC type (2), 140 IRE, 75Ω

Color difference/GBR output: BNC type (1 set)

G/B/R:0.7 Vp-p, 75Ω Y: 0.714 Vp-p, 75Ω R-Y/B-Y: 0.7 Vp-p, 75Ω color difference/GBR selectable

PIX out: BNC type (1), 1.0 Vp-p, 75Ω

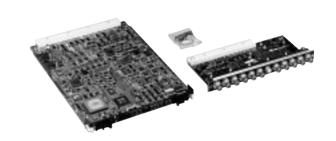
R/G/B/EN

WF out: BNC type (1), 1.0 Vp-p, 75Ω

R/G/B/EN/SEQ

WF mode: 4-pin multi-connrctor (1), Stairstep





HKCU-702

HD analog interface board for HDCU-700A

•By slotting the HKCU-702, 1125 analog HD signal can be output (RGB/Y, P_B, P_R selectable) •Equipped with 1125 analog HD return signal input connector

*This model is used for HD/NTSC system.

Specifications

General

Operating temperature: +5 °c to +40 °C (+41 °F to +104 °F) Storage temprature: -20 °C to +60 °C (-4 °F to +140 °F)

Mass: Approx: 0.4 kg (14 oz)

Input connectors

RET Input: BNC type (4), 1.0 Vp-p, 75Ω

Output connectors

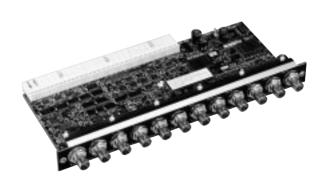
Output: BNC type (2 sets), SMPTE-240M, 1.0 Vp-p, 75Ω ,

Y, PB, PR/GBR selectable

PIX out: BNC type (1), SMPTE-240M, R/G/B/Y, 1.0 Vp-p, 75Ω

Sync out: BNC type (1), SMPTE-240M, 0.6 Vp-p





CAMERAS

HKCA-700

Build-up uint for HDC-750A

•Specially designed for HDC-750A to use with the studio lens •HDVF-700 HD electric viewfinder can be attached •Friendly operation equivalent with HDC-700A •Well-balanced and highly maneuverable •Various functions are easily controlled from the rear panel •Easily docked with the camera head

*This model is used for HD/NTSC system.

Specifications:

Power requirement: DC 12 V (10.5 to 17 V)
Operation temperature: -20 °C to +45 °C
Storage temperature: -20 °C to +50 °C
Mass: 14.5 kg (31 lb 15 oz)
Dimensions: $376(W) \times 374(H) \times 520(D)$ mm $(14\% \times 14\% \times 20\% 2 \text{ inches})$

Input/output connectors: camera: 50-pin

lens: 36-pin viewfinder: 25-pin

Supplied accessories: Number plate (2)

Front foot assembly (1)
Rear foot assembly (1)
3.0 mm wrench (1)
Operation manual (1)
Maintenance manual (1)
4.0 mm wrench (1)
Angle adjustment fittings (2)
Belt for cable clamp (2)
Tripod adaptor (1)
DC cable (1)

Optional accessories: HDVF-700, 7-inck B/W viewfinder

VFH-770, 7-inch viewfinder sport hood for HDVF-700





Lens, viewfinder, camera and camera adaptor are optional.

CAMER

HDVF-700

7-inch HD B/W Viewfinder

•Specially designed for use with HDC-700A series—for direct camera installation •Compact size with reduced height, light weight and energy saving design •Wide range of mechanical positioning and fixed center of gravity •Extremely high center resolution of 1000 TV lines and wide peaking range contribute to a very crisp image and accurate focusing •Large, very easy to see tally lamps •Underscan display •16:9/4:3 switcable •Picture in picture for return video

monitoring and HD Return video signal can be displayed •Continuously variable peaking circuit provides a sharp image and easy focusing •Drip-proof design is able to withstand light rain, well suited to outdoor use

Specifications

CRT: 7-inch 90-degree deflection Screen size: 90(H) × 120(W) mm (4:3 aspect ratio)

(3 5/8 × 4 3/4 inches)

Tilting angle: +60°/-50°

Brightness: More than 500 cd/m² (146 fL)

Resolution: 800 lines (center) 600 lines (corner)

Geometric distortion: Within 2.0 %

Controls: Contrast/Brightness/Peaking/Peaking

SW/PowerSW/Scan Size SW

Aperture correction: 0 to 15 dB

Power requirements: DC 10.7 to 17.0 VDC

DC 12.0 (typical)

Power consumption: 31 V

Mass: Approx. 5.0 kg (11 lb)

Dimensions: Approx. $265(W) \times 178(H) \times 362(D)$ mm

(10 ½ × 7 ½ × 14 ¾ inches)







HDVF-500

5-inch B/W Viewfinder

- •900 TV lines of resolution at center •High brightness
- •Adjustable center position marker with ON/OFF switch
- •Panning and tilting facility •Easy installation and handling
- •Used with HDC-750A

*This model is used for HD/NTSC system.

Supplied accessories: Connecting cables (1)

V wedge shoe attachment (1) Monitor hood for studio use (1)

Screws (1set) Hexagon wrench (1)

Operation and maitenance manual (1)

Specifications:

CRT: 5-inch monochrome

Screen size: $54(H) \times 96(W)$ mm underscan (16:9 mode)

(2 ½ × 3 ½ inch)
Luminance: 300NIT
Power requirements: 10.5 to 17 VDC

Power consumption: 18 W

Resolution: 650 TV lines at center 550 TV lines at corners

Geometric distortion: Less than 5 %

Operating temperature: -10 °C to +50 °C (+14 °F to +122 °F)

Mass: 1.9 kg (4 lb 3 oz)

Dimensions: 191(W) × 188(H) × 291(D)mm

(7 5/8 × 7 ½ × 11 ½ inches)

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^{*}This model is used for HD/NTSC system.

CAMERA

HDVF-20

2-inch HD B/W Viewfinder

•2-inch 16:9 widescreen B/W CRT viewfinder for HDC-750A •High resolution—500 TV lines at center in both 16:9 and 4:3 modes •16:9/4:3 switchable •The eye-piece is removable from the viewfinder to allow direct view of the CRT •Marker indication on/off function •Tally lamp for camera operatior is located on the viewfinder body for operational convenience. So that, the tally lamp can be seen even when not looking at the viewfinder screen. It also can be masked with a sliding cover. •Supplied with a new external microphone

*This model is used for HD/NTSC system.

Specifications

General

Power requirements: 10.7 to 17 VDC

Power consumption: 4 W

Operating temperature: -20 °C to +45 °C (-4 °F to +113 °F) Srorage temperature: -20 °C to +50 °C (-4 °F to +122 °F) External dimensions: $239(W) \times 76(H) \times 210(D)$ mm ($9\frac{1}{2} \times 3 \times 8\frac{3}{9}$ inches)

Mass: 600 g (1 lb 5 oz)

performance

CRT: 2-inch monochrome, 16:9 aspect ratio

Horizontal resolution: 500 TV lines (at center)

Indicators: REC/TALLY, BATT, VTR SAVE, !

Supplied accessories: Microphone (1)

Microphone spacer (19 mm) (1) Microphone spacer (21 mm) (1) Operation manual (1)

Operation manual (1

Optional accessories: BKW-401, viewfinder rotation bracket

Fog-proof filter (Part No. 1-547-341-11) Lens assembly (farsighted) (Part No. A-8262-537-A)

Lens assembly (low magnification)

(Part No. A-8262-538-A)

Lens assembly (standard magnification with special

compensation for aberrations) (Part No. A-8267-737-A)





BVP-900(NTSC)/900P(PAL)

3-chip CCD Studio/OB Camera System

•A true flagship of Sony's studio/OB camera for high-end broadcast applications •Industry-first Integrated Imaging Capsule technology (Refer to OHB-750A/750WSA/730/ 730WS and their respective PAL versions) •Advanced digital signal processing and 12-bit A/D conversion •Highest picture quality of Power HAD™ 1000 CCD imager •16:9/4:3 switchable when used with OHB-750WSA/730WS (and their respective PAL versions) •Very high depth of modulation of 80% at 5 MHz •Excellent signal-to-noise ratio of 65dB(NTSC)/63dB(PAL) •High sensitivity of F8.0 at 2000 lx •High horizontal resolution of 900 TV lines when used with OHB-750A/730 (and their respective PAL versions) •Five positions of ND-CC filters •Electronic shutter function •Electric clear scan •Knee saturation control function •Adaptive high-light control function •Electric soft focus •Fine detail control function •Triple skintone detail control function •3D white shading •Skintone auto iris •Multi matrix •Black Gamma control function •Fully compatible with Sony's New Generation Camera Control Units •Wideband component triax transmission system •Advanced filing system with MSU-700A/750 •Optical Head Block can store its OHB data within itself •Low profile body design •View finder lock system •VF menu display •Full plug-in CCD block •Rotary type triax connector •Various input/output connectors and optional accessories

Supplied accessories: Angle adjustment fittings (2)

Front cover (1)

Number plate for up tally (1)

for side panel (2) for rear panel (1)

Belt for cable clamp (2) Operation manual (1) Maintenance manual (1)

16:9/4:3 conversion board (supplied with OHB-750WSA/730WS and their respective PAL versions)

Optional accessories: Extension board (2)

BVF-77/77CE, 7-inch B/W viewfinder BVF-7700/7700P, 7-inch color viewfinder

VFH-770, 7-inch viewfinder sport hood for BVF-7700/P

BKP-7910/7910P, standalone kit BKP-7911/7912, script holder

OHB-750A/750WSA/730/730WS (and their respective

PAL versions), Integrated Imaging Capsule

BKP-9901, System manual

Recommended equipment:

CCU-700A/700AP, Camera control unit

MSU-700A/750, Master setup unit

RCP-741/740/731/730/721/720/701/700, Remote

control panel

RM-B150, Remote control unit VCS-700, Video selector

CNU-700/500, Camera command network unit

*BVP-900/900P are not supplied with a CCD block. At least one unit of CCD Imaging Capsule (OHB Series) should be ordered with a camera.

Power HAD



9 Cameras

Specifications

		BVP-900	BVP-900P	
Pickup device system		3-chip 2/3-inch F	IT CCD*	
Picture elements	3	1038(H) × 504(V) 1038(H) × 594(V)		
Filter wheels Color filter-A		Cross		
	Color filter-B	3200K		
	Color filter-C	4300K		
	Color filter-D	6300K		
	Color filter-E	8000K		
	ND filter-1	Clear		
	ND filter-2	1/4ND		
	ND filter-3	1/8ND		
	ND filter-4	1/16ND		
	ND filter-5	1/64ND		
Sensitivity		F 8.0 at 2000 lx (with OH	IB-750A/750AP)	
•		(3200K 89.9% re	eflective)	
Minimum illumin	ation	7.8 lx	•	
		(F1.4, +18 dB g	ain up)	
S/N ratio		65 dB	63 dB	
Horizontal resolu	ution	900 TV Lir	ne	
Vertical resolition	า	450 TV line	530 TV line	
		(with EVS or Super EVS)	(with EVS or Super EVS)	
Smear level		–145 dB (with OHB-750		
Shutter speed se	election	1/100, 1/125, 1/250, 1/500,	1/60, 1/125, 1/250, 1/500,	
·		1/1000, 1/2000 s	1/1000, 1/2000 s	
Gain selection		-3 db, 0 dB, +3 d	<u>*</u>	
		+9 db, +12 dB,		
Clear scan selec	ction	30.4 ~ 7000 Hz	25.4 ~ 9000 Hz	
Input connectors	Mic in	XLR-3-pin (Female) x 2,	phantom +48 V	
·	Ref in	BNC type (BKP-7910/7910P required)		
	DC in	XLR-4-pin (male) (BKP-791	. ,	
RET Control		6-pin	,	
Output connecto	ors Test out	BNC type, 1.0Vp	-p, 75 Ω	
•	Prompter	BNC type, 1.0Vp-p, 75 Ω		
	AC utlity out	MAX. 200 VA		
	Video out	BNC type, 1.0Vp-p, 75 Ω (BKP-7910/7910P required)		
	Script	4-pin, 5 W/12		
	Intercom	XLR-5-pin × 2		
Input/output con		Kings type	Fischer type	
	Lens	36-pin		
VTR Tracker Remote		26-pin		
		10-pin		
		8-pin multi-connector		
Operating temper	* ***	-20 °C to + 45 °C (-4 °F to +113 °F)		
Storage tempera		-20 °C to +50 °C (-4 °F to +122 °F)		
Mass		Approx. 20 kg (44 lb 1 oz)		

^{*}IT CCD/Widescreen CCD are also available

:AMERAS

BVP-950(NTSC)/950P(PAL)

3-chip CCD Portable Color Camera

•The BVP-900/900P's full companion studio/OB portable camera with the same CCD Imaging Capsule •Advanced digital signal processing and 12-bit A/D conversion •Highest picture quality of Power HAD™ 1000 CCD imager •High horizontal resolution of 900 TV lines when used with OHB-750A/730 (and their respective PAL versions) •Excellent signal-to-noise ratio of 65dB(NTSC)/63dB(PAL) •Very high depth of modulation of 80% at 5MHz •Electronic shutter function •High sensitivity of F8.0 at 2000 lx •Electric clear scan •Five positions of ND-CC filters •Two channels of intercom with CA-570/570P •Knee saturation control function •Adaptive highlight control function •Electronic soft focus •Triple skintone detail control function •Fine detail control function •3D white shading •Skintone auto iris •Multi matrix •Black Gamma cintrol function •Fully compatible with Sony's New Generation Camera Control Units •Wideband component triax transmission system •Advanced filing system with MSU-700A/750 •Optical Head Block can store its OHB data within itself •Switch cover on the side panel prevent miss operation •Return 1 and 2 switch/Intercom switch on the carrying handle •Servo-controlled ND and CC filters •One button operation to dock or release camera

Supplied accessories: Operation manual (1)

Maintenance manual (1) 16:9/4:3 conversion board

(supplied with OHB-750WSA/730WS and their

respective PAL versions)

Optional accessories: BVF-20W/20WCE, 2-inch widescreen B/W view finder

BVF-C10W, 1.35-inch widescreen color LCD

viewfinder

adapter •Various camera adapters are available

BVF-10/10CE, 1.5-inch B/W viewfinder BVF-55/55CE, 5-inch B/W viewfinder VFH-550, 5-inch viewfinder sports hood for

BVF-55/55CE

OHB-750A/750WSA/730/730WS (and their respective PAL versions), integrated imaging capsule

CA-570/570P, Camera adaptors for CCU-700A/700AP/550/550P

CA-550/1,CA-550P/1, Camera adaptors for CCU-700A/700AP/550/550P/550A/550AP CA-530, Camera adaptor for SDI Output CA-553, Camera adaptor for dockable VTR

VCT-14, Tripod adaptor Extension board BKP-9901, System manual

Recommended equipment:

CCU-700A/700AP, Camera control unit MSU-700A/750, Master setup unit

RCP-741/740/731/730/721/720/701/700, Remote

control panel

RM-B150, Remote control unit VCS-700, Video selector

CNU-700/500, Camera command network unit

*BVP-950/950P are not supplied with a CCD block.At least one unit of CCD Imaging Capsule (OHB series) should be ordered with a camera.

**Lens with 'shrinker' function are recommended for WS models.

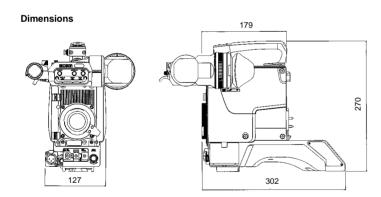
Power HAD



9 Cameras

Specifications

		BVP-950	BVP-950P		
Pickup device system		3-chip 2/3-inch FIT CCD*			
Picture elements		1038(H) × 504(V)	1038(H) × 594(V)		
Filter wheels	Color filter-A	Cros	SS		
	Color filter-B	3200K			
	Color filter-C	4300	4300K		
	Color filter-D	6300	OK .		
	Color filter-E	8000	OK .		
	ND filter-1	Clea	ar		
	ND filter-2	1/4N	D		
	ND filter-3	1/8N	D		
	ND filter-4	1/16N	ND		
	ND filter-5	1/64N	ND		
Sensitivity F 8.0 at 2000 lx (with OHB-750A/750AP)		OHB-750A/750AP)			
		(3200K 89.9% reflective)			
Minimum illumin	nation	7.8 lx			
		(F1.4, +18 dB gain up)			
S/N ratio		65 dB	63 dB		
Horizontal resol	ution	900 TV Line			
Vertical resolitio	n	450 TV line	530 TV line		
		(with EVS or Super EVS)	(with EVS or Super EVS)		
Smear level		-145 dB (with OHB-7	,		
Shutter speed s	Shutter speed selection 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 s 1/60, 1/125, 1/250, 1/500, 1/1000,		1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s		
Gain selection		-3 db, 0 dB, +3 dB, +6 dB,	+9 db, +12 dB, +18 dB		
Clear scan selection		30.4 ~ 7000 Hz	25.4 ~ 9000 Hz		
Input connectors Mic in		XLR-3-pin (Female), phantom +48 V			
Output connectors Test out		BNC type, 1.0Vp-p, 75 Ω			
Input/output connectors Lens Remote		12-pin			
		8-pin multi-connector			
Operating temperature		−20 °C to + 45 °C (−4 °F to +113 °F)			
Storage temperature		−20 °C to + 50 °C (−4 °F to +122 °F)			
Mass		Approx. 3.7 kg (8 lb 2 oz) (with O	HB-750A/750AP and BUF-10)		



CAMERAS

OHB-750A (NTSC)/750A (PAL)

Integrated Imaging Capsule

•Furnished with a 4:3 standard image format Power HAD 1000 FIT CCD chips for the BVP-900/900P and the BVP-950/950P.

OHB-750WSA (NTSC)/750WSAP (PAL)

Integrated Imaging Capsule

•Furnished with a true 16:9 widescreen image format Power HAD 1000 FIT CCD chips for the BVP-900/900P and the BVP-950/950P.

OHB-730 (NTSC)/730P (PAL)

Integrated Imaging Capsule

•Furnished with a 4:3 standard image format Power HAD 1000 IT CCD chips for the BVP-900/900P and the BVP-950/950P.

OHB-730WS (NTSC)/730WSP (PAL)

Integrated Imaging Capsule

•Furnished with a true 16:9 widescreen image format Power HAD 1000 IT CCD chips for the BVP-900/900P and the BVP-950/950P.

Specifications (OHB-750A/750WSA/730/730WS) (NTSC)

	OHB-750A	OHB-750WSA	OHB-730	OHB-730WS	
Pickup device system					
Device configuration	3-chip 2/3-inch FIT CCD	3-chip 2/3-inch FIT CCD	3-chip 2/3-inch IT CCD	3-chip 2/3-inch IT CCD	
Aspect ratio	4:3 standard	16:9/4:3 switchable	4:3 standard	16:9/4:3 switchable	
Picture elements		1038 (H)	x 504 (V)		
Optical Specifications					
Specuram system		F1.4 pris	sm system		
Servo control		Υ	'es		
Color filter-A		Cr	oss		
Color filter-B		32	00K		
Color filter-C			00K		
Color filter-D			00K		
Color filter-E			00K		
ND filter-1			ear		
ND filter-2		1/4 ND			
ND filter-3	1/8 ND				
ND filter-4			6 ND		
ND filter-5		1/6-	4 ND		
Electrical Characteristic					
Sensitivity	F8.0 at 2000 lx	F 10.0 at 2000 lx	F8.0 at 2000 lx	F 10.0 at 2000 lx	
	(3200K 89.9% reflectance)	(3200K 89.9% reflectance)	(3200K 89.9% reflectance)	(3200K 89.9% reflectance)	
Minimum subject illumination	7.8 lx (F1.4, +18 dB gain)	5 lx (F1.4, +18 dB gain)	7.8 lx (F1.4, +18 dB gain)	5 lx (F1.4, +18 dB gain)	
Signal-to-noise ratio	65 dB				
Horizontal resolution	900 TV lines				
Vertical resolution		V lines	480 T	V lines	
	(450TV lines with E				
Geometric distortion	Below measurable level (without lens)				
Shutter speed selection	1/100, 1/250, 1/500, 1/1000, 1/2000 sec.				
Gain selection	-3, 0, +3, +6, +9, +12 +18 dB				
Clear scan selection	30.4 to 7000 Hz 60.1 to 7000 Hz		7000 Hz		
Modulation depth at 5 MHz	80 % (typical)				
Power Consumption	20W				
Power requirements	DC 10.5 to 17 V				
General					
Operating temperature	-20°C to +45°C (-4°F to +113°F)				
Storage temperature	-20°C to +50°C (-4°F to +122°F)				

Specifications (OHB-750AP/750WSAP/730P/730WSP) (PAL)

	OHB-750AP	OHB-750WSAP	OHB-730P	OHB-730WSP
Pickup device system				
Device configuration	3-chip 2/3-inch FIT CCD		3-chip 2/3-inch IT CCD	
Aspect ratio	4:3 standard	16:9/4:3 switchable	4:3 standard	16:9/4:3 switchable
Picture elements		1038 (H)	x 594 (V)	
Optical Specifications				
Specuram system		F1.4 pris	sm system	
Servo control		-	'es	
Color filter-A		Cr	ross	
Color filter-B			00K	
Color filter-C		43	00K	
Color filter-D			00K	
Color filter-E			00K	
ND filter-1			lear	
ND filter-2			I ND	
ND filter-3	1/8 ND			
ND filter-4	1/16 ND			
ND filter-5	1/64 ND			
Electrical Characteristic				
Sensitivity	F8.0 at 2000 lx	F 9.0 at 2000 lx	F8.0 at 2000 lx	F 9.0 at 2000 lx
	(3200K 89.9% reflectance)	(3200K 89.9% reflectance)	(3200K 89.9% reflectance)	(3200K 89.9% reflectance)
Minimum subject illumination	7.8 lx (F1.4, +18 dB gain)	6.2 lx (F1.4, +18 dB gain)	7.8 lx (F1.4, +18 dB gain)	6.2 lx (F1.4, +18 dB gain)
Signal-to-noise ratio			3 dB	
Horizontal resolution	900 TV lines			
Vertical resolution	480 TV lines (530TV lines			V lines
Geometric distortion	Below measurable level (without lens)			
Shutter speed selection	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec.			
Gain selection	-3, 0, +3, +6, +9, +12 +18 dB			
Clear scan selection	25.4 to 9000 Hz 50.2 to 9000 Hz			
Modulation depth at 5 MHz	80 % (typical)			
Power Consumption	20W			
Power requirements	DC 10.5 to 17 V			
General	-			
Operating temperature	-20°C to +45°C (-4°F to +113°F)			
Storage temperature	-20°C to +50°C (-4°F to +122°F)			

BVP-570(NTSC/PAL)

3-chip CCD Portable Color Camera

•Advanced digital signal processing and 12-bit A/D conversion •Highest picture quality of 2/3-inch Power HAD™ 1000 CCD imager •16:9/4:3 Switchable when installed with OHB-455WS/550WS/T450WS (and their respective PAL versions) •High horizontal resolution of 900 TV lines when used with OHB-450/451/550 (and their respective PAL versions) •Very high modulation depth of over 70% at 5 MHz •Excellent signal-to-noise ratio of 65dB(NTSC)/63dB(PAL) •High sensitivity of F8.0 at 2000 lx •Electronic shutter function •Electric clear scan •Adaptive High-light control function •Knee saturation control function •Adaptive detail control function •Triple skin tone detail control function •Electric soft focus •Skin tone auto iris •Full interface compatibility with any Sony Camera Control Unit •Wideband component triax transmission system •Advanced filing system with MSU-700/700A/750 •Various CCD block can be used •Rotary type triax connector •Various camera adapter can be used with BVP-570

Operation manual (1) Supplied accessories:

Maintenance manual (1)

BVF-20W/20WCF 2-inch widescreen B/W viewfinder Optional accessories:

BVF-C10W 1.35-inch widescreen color I CD

viewfinder

BVF-10/10CE, 1.5-inch B/W viewfinder BVF-55/55CF 5-inch B/W viewfinder VFH-550, 5-inch viewfinder sports hood for

BVF-55/55CF

OHB-450/451/550/550WS/T450WS (and their respective PAL versions), integrated imaging capsule CA-550/550P/570/570P, Camera adaptors for CCU-700A/700AP/550/550P/550A/550AP CA-530, Camera adaptor for portable VTR CA-553, Camera adaptor for dockable VTR

BKDW-701, Servo filter unit BKP-5530, carying handle for BVV-5

VCT-14, tripod adaptor

BKP-5091, Conversion Board (16:9 → 4:3)

*BVP-570 is not supplied with a CCD black. At least one should be ordered with a camera.
**Lens with 'shrinker' function are recommended for WS models.

Specifications

DC 12V (10.5V to 17V) Power requiements:

21 W Power consumpition:

-20°C to +45°C (-4°F to +113°F) Operating temperature: -20°C to +50°C (-4°F to +122°F) Storage temperature: Mass Approx. 3.2kg (7 lb 1 oz)

Input Connectors Mic in:

XLR-3P (Female), phantom + 48V **Output Connectors**

Test out: BNC type, 1.0Vp-p, 75Ω

Input/output connectors

Viewfinder I/F: 20-pin 12-pin

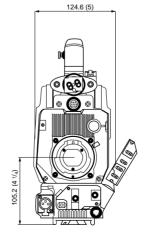
Camera adapter I/F: 136-pin (68-pin × 2)

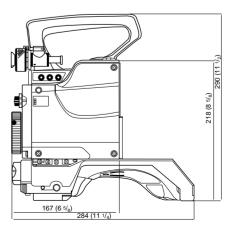
Remote: 6-pin

Power HAD



Dimensions





OHB-450 (NTSC)/450P (PAL)

Integrated Imaging Capsule

•Furnished with a 4:3 standard image format Power HAD 1000 IT CCD chips for the BVP-500/570 •No remote control capability for CC/ND filter

OHB-451 (NTSC)/451P (PAL)

Integrated Imaging Capsule

•Furnished with a 4:3 standard image format Power HAD 1000 IT CCD chips for the BVP-500/570 •Remote control capability for CC/ND filter as standard

OHB-455WS (NTSC)/455WSP (PAL)

Integrated Imaging Capsule

• Furnished with a true 16:9 widescreen image format Power HAD 1000 IT CCD chips for the BVP-550/570. •Remote control of CC/ND filters can be done with the optional BKDW-701 filter servo unit. •The combination of BVP-550 and OHB-455WS/455WSP has 16:9/4:3 switching capability as standard. •The combination of BVP-570 and OHB-455WS/455WSP outputs 16:9 signal only, so it requires BKP-5091 (Conversion Board from 16:9 to 4:3) when 16:9/4:3 switching capability is needed.

OHB-550 (NTSC)/550P (PAL)

Integrated Imaging Capsule

•Furnished with a 4:3 standard image format Power HAD 1000 FIT CCD chips for the BVP-500/570 •Remote control of CC/ND filters can be done with the optional BKDW-701 filter servo unit.

OHB-550WS (NTSC)/550WSP (PAL)

Integrated Imaging Capsule

• Furnished with a true 16:9 widescreen image format Power HAD 1000 FIT CCD chips for the BVP-550/570. •Remote control of CC/ND filters can be done with the BKDW-701 optional filter servo unit. •The combination of BVP-550 and OHB-550WS/550WSP has 16:9/4:3 switching capability as standard. •The combination of BVP-570 and OHB-550WS/550WSP outputs 16:9 signal only, so it requires BKP-5091 (Conversion Board from 16:9 to 4:3) when 16:9/4:3 switching capability is needed.

Specifications (with BVP-570)

	OHB-450/451	OHB-455WS	OHB-550	OHB-550WS
Pick-up Device System				
Device configuration	3-chip 2/3-inch IT CCD	3-chip 2/3-inch IT CCD	3-chip 2/3-inch FIT CCD	3-chip 2/3-inch FIT CCD
	(4:3 Standard)	(16:9/4:3 Switchable)	(4:3 Standard)	(16:9/4:3 Switchable)
Picture elements (total)	1038(H) x 504(V)	1038(H) x 504(V)	1038(H) x 504(V)	1038(H) x 504(V)
Optical Specifications				
Specrum system	F1.4 prism system	F1.4 prism system	F1.4 prism system	F1.4 prism system
Built-in filter wheel				
Servo filter drive	OHB-450: Not available	Option (BKDW-701)	Option (BKDW-701)	Option (BKDW-701)
	OHB-451: Supplied			
Color filter - A	_	Cross filter	Cross filter	Cross filter
Color filter - B	_	3200K	3200K	3200K
Color filter - C	_	4300K	4300K	4300K
Color filter - D	-	6300K	6300K	6300K
ND filter - 1	3200K	Clear	Clear	Clear
ND filter - 2	5600K + 1/4 ND	1/4 ND	1/4 ND	1/4 ND
ND filter - 3	5600K	1/16 ND	1/16 ND	1/16 ND
ND filter - 4	5600K + 1/16 ND	1/64 ND	1/64 ND	1/64 ND
Electrical Characteristic				
Sensitivity	F8.0 at 2000 lx	F8.0 at 2000 lx	F8.0 at 2000 lx	F8.0 at 2000 lx
	(3200K, 89.9% reflectance)	(3200K, 89.9% reflectance)	(3200K, 89.9% reflectance)	(3200K, 89.9% reflectance)
Minimum subject illumination	2 lx	2 lx	2 lx	2 lx
	(F1.4 lens, +30dB gain up)	(F1.4 lens, +30dB gain up)	(F1.4 lens, +30dB gain up)	(F1.4 lens, +30dB gain up)
S/N ratio	62 dB	65 dB	65 dB	65 dB
Horizontal resolution	900 TV lines (luminance at center)	680 TV lines (luminance at center)	900 TV lines (luminance at center)	680 TV lines (luminance at center)
Vertical resolution	450 TV lines (with EVS)	450 TV lines (with EVS)	450 TV lines (with EVS or Super EVS)	450 TV lines (with EVS or Super EVS)
Geometric distortion	Below measurable level (no lens)	Below measurable level (no lens)	Below measurable level (no lens)	Below measurable level (no lens)
Shutter speed selection	1/100, 1/125, 1/250, 1/500,	1/100, 1/125, 1/250, 1/500,	1/100, 1/125, 1/250, 1/500,	1/100, 1/125, 1/250, 1/500,
	1/1000, 1/2000 s	1/1000, 1/2000 s	1/1000, 1/2000 s	1/1000, 1/2000 s
Gain selection	-3dB, 0dB, +3dB, +6dB, +9dB,	-3dB, 0dB, +3dB, +6dB, +9dB,	-3dB, 0dB, +3dB, +6dB, +9dB,	-3dB, 0dB, +3dB, +6dB, +9dB,
	+12dB, +18dB, +24dB, +30dB	+12dB, +18dB, +24dB, +30dB	+12dB, +18dB, +24dB, +30dB	+12dB, +18dB, +24dB, +30dB
Clear scan selection	60.1 ~ 7000 Hz	60.1 ~ 7000 Hz	60.1 ~ 7000 Hz	60.1 ~ 7000 Hz
Extended clear scan	No	No	30.4 ~ 58.3 Hz	30.4 ~ 58.3 Hz
Modulation depth (at 5MHz)	70%	70%	70%	70%
Power consumption*	20 W	20.5 W	20.5 W	21 W
DC input range	10.5 ~ 17 V	10.5 ~ 17 V	10.5 ~ 17 V	10.5 ~ 17 V
General				
Operating temperature				-20 °C to +45 °C (-4 °F to +113 °F)
Storage temperature	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)

^{*}Measured with BVP-570 and BVF-10

	OHB-450P/451P	OHB-455WSP	OHB-550P	OHB-550WSP
Pick-up Device System		1	1	
Device configuration	3-chip 2/3-inch IT CCD	3-chip 2/3-inch IT CCD	3-chip 2/3-inch FIT CCD	3-chip 2/3-inch FIT CCD
_	(4:3 Standard)	(16:9/4:3 Switchable)	(4:3 Standard)	(16:9/4:3 Switchable)
Picture elements (total)	1038(H) × 594(V)	1038(H) × 594(V)	1038(H) × 594(V)	1038(H) × 594(V)
Optical Specifications				
Specrum system	F1.4 prism system	F1.4 prism system	F1.4 prism system	F1.4 prism system
Built-in filter wheel	' '	. ,	. ,	. ,
Servo filter drive	OHB-450P: Not available	Option (BKDW-701)	Option (BKDW-701)	Option (BKDW-701)
	OHB-451: Supplied	, , ,	, , ,	, , ,
Color filter - A	_	Cross filter	Cross filter	Cross filter
Color filter - B	_	3200K	3200K	3200K
Color filter - C	_	4300K	4300K	4300K
Color filter - D	_	6300K	6300K	6300K
ND filter - 1	3200K	Clear	Clear	Clear
ND filter - 2	5600K + 1/4 ND	1/4 ND	1/4 ND	1/4 ND
ND filter - 3	5600K	1/16 ND	1/16 ND	1/16 ND
ND filter - 4	5600K + 1/16 ND	1/64 ND	1/64 ND	1/64 ND
Electrical Characteristic				
Sensitivity	F8.0 at 2000 lx	F8.0 at 2000 lx	F8.0 at 2000 lx	F8.0 at 2000 lx
	(3200K, 89.9% reflectance)	(3200K, 89.9% reflectance)	(3200K, 89.9% reflectance)	(3200K, 89.9% reflectance)
Minimum subject illumination	2 lx	2 lx	2 lx	2 lx
	(F1.4 lens, +30dB gain up)	(F1.4 lens, +30dB gain up)	(F1.4 lens, +30dB gain up)	(F1.4 lens, +30dB gain up)
S/N ratio	60 dB (with BVP-570)	63 dB	63 dB	63 dB
Horizontal resolution	900 TV lines (luminance at center)	680 TV lines (luminance at center)	900 TV lines (luminance at center)	680 TV lines (luminance at center)
Vertical resolution	530 TV lines (with EVS)	530 TV lines (with EVS)	530 TV lines (with EVS or Super EVS)	530 TV lines (with EVS or Super EVS)
Geometric distortion	Below measurable level (no lens)	Below measurable level (no lens)	Below measurable level (no lens)	Below measurable level (no lens)
Shutter speed selection	1/60, 1/125, 1/250, 1/500,	1/60, 1/125, 1/250, 1/500,	1/60, 1/125, 1/250, 1/500,	1/60, 1/125, 1/250, 1/500,
	1/1000, 1/2000 s	1/1000, 1/2000 s	1/1000, 1/2000 s	1/1000, 1/2000 s
Gain selection	-3dB, 0dB, +3dB, +6dB, +9dB,	-3dB, 0dB, +3dB, +6dB, +9dB,	-3dB, 0dB, +3dB, +6dB, +9dB,	-3dB, 0dB, +3dB, +6dB, +9dB,
	+12dB, +18dB, +24dB, +30dB	+12dB, +18dB, +24dB, +30dB	+12dB, +18dB, +24dB, +30dB	+12dB, +18dB, +24dB, +30dB
Clear scan selection	50.2 ~ 9000 Hz	50.2 ~ 9000 Hz	50.2 ~ 9000 Hz	50.2 ~ 9000 Hz
Extended clear scan	No	No	25.4 ~ 48.5 Hz	25.4 ~ 48.5 Hz
Modulation depth (at 5MHz)	70%	70%	70%	70%
Power consumption	20 W (with BVP-570 and BVF-10CE)	20.5 W (with BVP-570 and BVF-10CE)	,	21 W (with BVP-570 and BVF-10CE)
DC input range	10.5 ~ 17 V	10.5 ~ 17 V	10.5 ~ 17 V	10.5 ~ 17 V
General				
Operating temperature	-20 °C to +45 °C (-4 °F to +113 °F)	-20 °C to +45 °C (-4 °F to +113 °F)	-20 °C to +45 °C (-4 °F to +113 °F)	-20 °C to +45 °C (-4 °F to +113 °F)
Storage temperature	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)

OHB-T450WS (NTSC)/T450WSP (PAL)

3-chip Telescopic CCD Unit

•Detachable optical head, to be used with the BVP-550/570 camera body •Can be operated 20 m away from the camera body •Furnished with a true 16:9 widescreen image format Power HAD 1000 IT CCD •Excellent signal-to-noise ratio of 63 dB (NTSC)/ 61dB (PAL) •High sensitivity of F8.0 at 2000 Ix •High horizontal resolution of 680 TV lines •The combination of BVP-550 and OHB-T450WS/T4550WSP has 16:9/4:3 switching capability as standard. •The combination of BVP-570 and OHB-455WS/455WSP outputs 16:9 signal only, so it requires BKP-5091 Conversion Board when 16:9/4:3 switching capability is needed.

Supplied accessories: Cable adaptor (1)

Tripod adaptor (1)
20 m extension cable (1)
Compensation board (1)
Operation manual (1)
Maintenance manual (1)

Optional accessories: BVP-570/550, Camera head unit CA-570/550/530, Camera adaptor

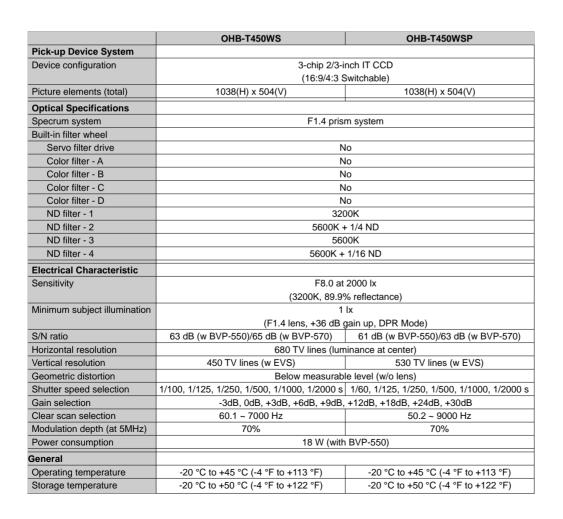
BVF-20W/20WCE, 2-inch B/W viewfinder BVF-C10W, 1.35-inch color LCD viewfinder BVF-10, 1.5-inch B/W viewfinder

BKP-5091, Widescreen conversion board (with

BVP-570)

Power HAD





CAMERA

CA-570(NTSC)/570P(PAL)

Camera Adaptor for BVP-950/950P/570/550

•Furnished with a wideband triax cable interface for use with the CCU-700A/550 series Camera Control Unit •High picture quality is provided through component (Y/R-Y/B-Y) transmission in the wideband triax cable •Ideal for studio use—All function switches are located at the rear in order to lower the viewfinder position and for comfortable tripod use in studios •Two channels of Intercom system •Provides a 26-pin connector for interface with portable VTRs via the CCZ or CCZQ cable •Prompter out •Reverse Trunk Video •Interface with Tracker and Return switch box •Rotary type triax connector

Supplied accessories: Triax cable holder (1)

Shoulder belt (1) M3 x 6 screw (4) Operation manual (1) Maintenance manual (1)

Optional accessories: Extension board (1)

Specifications

. General

Power requirements: DC 10.5 V to 17 V

Power consumption: 11 W

Connectors

AUDIO IN: XLR-3-pin (Female \times 2), 600 Ω , balanced, phantom

+48 V, AB +12 V

DC IN: XLR-4-pin (Male), 10.5 V to 17 V DC OUT: 4-pin, 10.5 V to 17 V, max 500 mA

 $\begin{array}{ll} \text{RET OUT:} & \text{BNC, } 1.0 \text{ Vp-p, } 75 \ \Omega \\ \text{PROMPTER IN/OUT:} & \text{BNC, } 1.0 \text{ Vp-p, } 75 \Omega, \text{ floating} \\ \text{VBS GENLOCK IN:} & \text{BNC, } 1.0 \text{ Vp-p, } 75 \Omega, \text{ floating} \\ \end{array}$

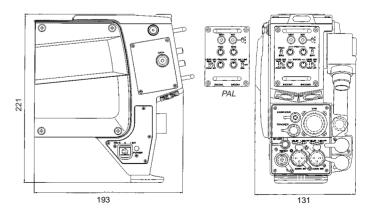
CCU (Coax): BNC (option)

INCOM/PGM: 2 CH, Headset XLR-5-pin (female)

RCP: 8-pin (Female)
Tracker: 10-pin, MAX.500mA, tally drive 50mA



Dimensions



CA-550(NTSC)/550P(PAL)

Camera Adaptor for BVP-550

•Furnished with a wideband triax cable interface for use with the CCU-700/500 series Camera Control Unit •High picture quality is provided through component (Y/R-Y/B-Y) transmission in the wideband triax cable •Ideal for studio use—All function switches are located at the rear in order to lower the viewfinder position and for comfortable tripod use in studios •Switchable Intercom system (Producer or Engineer line can be selected) •Provides a 26-pin connector for interface with portable VTRs via the CCZ or CCZQ cable

Supplied accessories: Operation manual (1)

Maintenance manual (1)

Optional accessories: Extension board (1)

BKP-5971, teleprompter unit (1)

COAX connector (1)

Dimensions: 193 (L) \times 154 (H) \times 119 (D)

(7 5% × 6 1% × 4 3/4 inches)

Specifications

. General

Power requirements: DC 12V (10.5V to 17V)

Power consumption: 10W

Operating temperature: -20 °C to +45 °C (-4 °F to +113 °F) Storage temperature: -20 °C to +50 °C (-4 °F to +122 °F)

Mass: Approx. 2.5kg (5 lb 8 oz)

Connectors

MIC IN: XLR-3-pin (Female), 600É∂, balanced, phantom

+48 V, AB +12 V

DC IN: XLR-4-pin (Male), 10.5V to 17V d-pin, 10.5V to 17V

 $\begin{array}{lll} \text{DC OUT:} & \text{4-pin, } 10.5 \text{V to } 17 \text{V} \\ \text{GENLOCK IN:} & \text{BNC, } 1.0 \text{Vp-p, } 75 \Omega \\ \text{RET OUT:} & \text{BNC, } 1.0 \text{Vp-p, } 75 \Omega \end{array}$

RETURN CONTROL: 6-pin EARPHONE: Mini jack, 8Ω CAMERA I/F: 68-pin

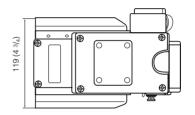
VTR: 26-pin (CCZ type)
CCU (Triax): Kings type (UC)

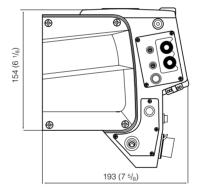
CCU (Coax): Fisicher Type (CE)
BNC (option)

INCOM/PGM: 1CH, Headset XLR-5-pin RCP: 8-pin (Female)



Dimensions





Unit: mm (inch)

CA-530

Camera Adaptor for BVP-950/950P/550/570

•Analog component output via CCZ 26-pin VTR interface •SDI output via CCZ 26-pin VTR interface •SDI output via BNC connector •Convenient facilities for stand alone portable operation •MIC Input •Power Save Mode •Light Weight and Conpact design with low power consumption •Optional viewfinder (BVF-55/55CE) can be attached

Supplied accessories: Operation manual (1)

Maintenance manual (1) Cable holder (1) Screw M3*6 (4) Battery spacer (1)

Specifications

General

DC 12V (10.5V to 17V) Power requirements:

6W Power consumption:

Operating temperature: -20°C to +45°C (-4°F to +113°F) -20°C to +45°C (-4°F to +113°F) Storage temperature: Approx. 2.0kg (4 lb 7 oz) Mass:

Connectors Input/output

BNC, 0.8Vp-p, 75Ω XLR-3-pin (Female), 600Ω , balanced XLR-4-pin (Male), 10.5V to 17V 4-pin, 10.5V to 17V, maximum current DC 0.2ASDI OUT: MIC IN: DC IN: DC OUT:

GENLOCK IN: BNC, 1.0Vp-p, 75Ω MONITOR OUT: BNC, 1.0Vp-p, 75Ω EARPHONE: Mini jack, 8Ω 68-pin (2) 26-pin (CCZ type) CAMERA I/F: VTR: RCP: 8-pin (Female)



CCU-700A(NTSC)/CCU-700AP(PAL)

Camera Control Unit for BVP-900/500 series

•Wideband triax transmission—with the advantage of avoiding differential time delays and differential gain via a component (R-Y/Y/B-Y) transmission system •With component SDI outputs (BNC type) (option) •Remote operation up to 2000 m for wideband transmission and up to 3000 m for normal bandwidth transmission (option) with ø14.5 mm triax cable •Built-in bi-directional teleprompter video channel •Mono color function available to VBS and Y. R-Y and B-Y outputs •With character display function •Built-in contrast and saturation functions •Flexible intercom system— 2 channels for producer/engineer and 4W or RTS or 2W selectable by internal switch •MIC gain (camera head) remote controllable •Flickerless sequential mode (R/G/B) standard for WFM output •Directly interfaces with MSU-700A/750, CNU-700/500 and RCP-700 series •19-inch rack mountable

Supplied accessories: AC power cord (1)

Plug holder for the AC power cord (1)

4-pin connectors (1) 19-pin connectors (1) Number plate (1 set) Operation manual (1) Maintenance manual (1)

Optional accessories: BKP-7311

BKP-7312

BKP-7931 sub-encoder board

Extension board (for the CCU-700A/700AP and

CNU-700)





Specifications

P				
10%, 50/60Hz				
Approx. 19 kg (41 lb 14 oz)				
1.0Vp-p, 75Ω				
nc:0.3), 75Ω				
75Ω				
75Ω				
2				
1.0Vp-p, 75Ω				
1)				
19-pin				
XLR-5-pin				
8-pin				
8-pin				
D-sub 25-pin				
XLR-5-pin 8-pin 8-pin 4-pin D-sub 15-pin				

^{*1} Available with option.

CCU-550A (NTSC)/550AP (PAL)

Portable Camera Control Unit

•Yet compact, capable of feeding power sufficient for the portable camera with a large lens and 7-inch viewfinder •Employs the Sony high-speed digital command protocol for real-time control with instant tactile response •Triax operation over cable lengths of up to 1400 m of Ø14.5 mm cable (with return video), up to 1050 m of Ø13 mm cable (Belden 9232) and up to 700 m of Ø 8.5 mm cable •Coax operation is possible, with power supplied locally to the camera •Half the width of a 19-inch rack and 3 units high •Improved system flexibility with operation on DC 12 V using the BKP-5974 DC Power Unit •Two microphone outputs •Full communication facilities

Supplied accessories: AC power cord (1)

4-pin connector (1) Number plate (1 set) Operation manual (1)

Maintenance manual Part 1(1) Optional accessories: Extension board (service parts)

BKP-5972, SDI output board BKP-5973, CCU control panel BKP-5974, DC power unit

Recommended equipment: BVP-950/950P/570/550, Camera head unit

CA-550/530/570/, Camera adaptor MSU-700A/750, Master setup unit RCP-700 series, Remote control panel RM-B150, Remote Control Unit VCS-700, Video selector

CNU-700/500, Camera command network unit CA-905K (Kings type), Large lens adaptor CA-905F (Fischer type), Large lens adaptor BKP-9057. View finder saddle for 7" viewfinder BVF-77/77CE, 7-inch monochrome viewfinder





Specifications

		CCU-550A	CCU-550AP			
	Power requirements	AC 100 to 240 V, 50/60 Hz				
	Power consumption	20 W (AC operation) 14.5W (DC operation)				
	(without camera)	CCU-550 with BKP-5973: 21 W (A	AC operation) 15W (DC operation)			
_	CCU-550 with BKP-5973 and BKP-5972: 27 W (AC operation) 21W (DC operation)					
era	Power consumption (with camera)	1.8 A Max.				
General	Cable length	1400m (almost 0.9 mile) max. (ø14.5mm)				
O	Operating temperature	-10°C to +40°C (+14°F to +104°F)				
	Mass (Approx.)	7 kg (15 lb 7oz) (when the E	BKP-5972 and the BKP-5973 are installed)			
	Dimensions (Approx.)	200(W) × 124(I	H) × 350(D) mm			
		(71/6 × 5 × 131/6 inches)				
<u>ء</u>	Return video input (1, 2, 3*) (BNC, loop through):	VBS, 1.0Vp-p, 75Ω, 1 each				
input signals	Reference input (BNC, loop through):	nput (BNC, loop through): VBS/BS, 1.0 Vp-p, 75Ω				
Si =	Prompter input* (BNC, loop through):	1.0Vp-p, 75Ω				
	Serial digital video output** (1,2) (BNC):	4:2:2 Component serial digital, (270Mbps), 0.8Vp-p, 75Ω, 1 each				
S						
nal	Encoded video output (1,2,3) (BNC):		p, 75Ω, 1 each			
sig	R/G/B video output*** (BNC):	700mVp-p, 75Ω				
Ħ	Y/R-Y/B-Y output*** (BNC):	Y:1.0Vp-p, 75Ω R-Y/B-Y: 700mVp-p, 75Ω	Y:1.0Vp-p, 75Ω R-Y/B-Y: 525mVp-p, 75Ω			
Output signals	Picture monitor output (BNC):	1.0Vp-p, 75Ω				
0	Waveform monitor output (BNC):	714mVp-p, 75 Ω (Encoded output: 1Vp-p, 75 Ω)	700mVp-p, 75 Ω (Encoded output: 1Vp-p, 75 Ω)			
	Mic output (1, 2) (XLR 3-pin):	0 dBu/-20 dBu balanced, 2 channels				
	Camera: Triax	Kings type (1)	Fischer type (1)			
put	Coax:	BNC type (1)				
ig E	RCP/CNU:	8-pin multiconnector				
	INTERCOM/TALLY/PGM:	D-sub 25-pin (1) 4W/RTS, TALLY: 24V DC, TTL level or contact selectable				
Input/Output Connectors	MIC REMOTE:	D- sub 15-pin (1)				
	INTERCOM (Front):	XLR-5-pin (1)				

^{*} It is switchable between Return 3 and Prompter.
**Available with BKP-5972 installed.
***It is switchable between R/G/B and Y/R-Y/B-Y.

CNU-700

Camera Command Network Unit for HDC-700A/BVP-900/500 series

•High-speed data transmission rates — more than 500 Kbps between CNU and MSU/RCP/CCU and 35 Kbps between camera head and CCU •Expandable system configuration — up to 12 cameras with one CNU-700 and one BKP-7930 installed •With character display function in monochrome •A bypass facility maintains communication between the CCUs and RCPs in the event of a CNU malfunction or power loss

Supplied accessories: AC power cord (1)

Plug holder for the AC power cord (1)

Operation manual (1)
Maintenance manual (1)

Optional accessories: BKP-7900, extension board for the CCU-700A/700AP

and CNU-700/500

BKP-7930, expansion board for system expansion up

to 12 cameras for the CNU-700 BKP-7932, modification unit BKP-7933, S-Bus interface board

Specifications

General

Power requirements: AC 100 to 120 V, 50/60 Hz (For USA and Canada)

AC 220 to 240 V, 50/60 Hz (For other countries)

Power consumption: 4.0 VA max.

Operating temperature: 0 °C to +45 °C (+32 °F to +113 °F)

Mass: Approx. 9.5 kg (20 lb 15 oz)
Dimensions: Approx. 424(W) × 132(H) × 400(D) mm

(16 3/4 × 5 1/4 × 15 3/4 inches)

Input and output connectors

CCU 1 through 6: 8-pin multiconnector (1 each)
RCP 1 through 6: 8-pin multiconnector (1 each)
MSU: 8-pin multiconnector (1)
VCS: 8-pin multiconnector (1)
AUX 1 and 2: 8-pin multiconnector (1 each)

CHARACTER: BNC type (2) video: 0.7Vp-p, sync: 0.3Vp-p
REFERENCE: BNC type (2) 0.3Vp-p with loop-through output

RS-232C: D-sub 9-pin (3)

AC IN: 3-pin (1)







CNU-500

Camera Command Network Unit for HDC-700A/BVP-900/500 Series

•High-speed data transmission rates — more than 500 Kbps between CNU and MSU/RCP/CCU and 35 Kbps between camera head and CCU •Suitable for applications with up to six cameras •With character display function in monochrome •With a bypass facility to maintain communication between the CCUs and RCPs in the event of a CNU malfunction or power loss

Supplied accessories: AC power cord (1)

Plug holder for the AC power cord (1)

Operation manual (1) Maintenance manual (1)



. General

Power requirements: AC 100 to 120V, 50/60 Hz (for USA and Canada)

AC 220 to 240 V, 50/60 Hz (for other countries)

Power consumption: 4.0 VA max.

Operation temperature: +5 °C to +40 °C (+41 °F to +104 °F) Mass: Approx. 7 kg(15 lb 7 oz)

Dimensions: Approx. $424(W) \times 45(H) \times 400(D)$ mm

 $(16 \frac{3}{4} \times 1 \frac{3}{4} \times 15 \frac{3}{4} \text{ inches})$

Input and output connectors

CCU 1 through 6:
RCP 1 through 6:
MSU:
VCS:
AUX:
8-pin multiconnector (1 each)
8-pin multiconnector (1)
8-pin multiconnector (1)
8-pin multiconnector (1)
8-pin multiconnector (1)

CHARACTER: BNC type (1) video: 0.7 Vp-p, sync: 0.3 Vp-p
REFERENCE: BNC type (1) 0.3 Vp-p with loop-through output

RS-232C: D-sub 9-pin (1)

AC IN: 3-pin (1)





MSU-700A

Master Setup Unit

•Successor of MSU-700 •New CPU adopted to realize high-speed digital control •32 scene files capability • Built-in software for the use in HDTV camera system •A single MSU-700A can set up 24 camera/CCU units with 2 CNU-700s and 4 VCS-700s •The unit is connected to CCU or a Camera Command Network Unit (CNU) which is connected to CCU by a special cable of up to 200 m (656 feet) in length and controls the camera functions

Supplied accessories: Operation Manual (1)

Maintenance Manual Part 1 (1)

Specifications

. General

Power requirements: 100 to 240 V AC, 50/60 Hz

Current consumption: 0.45 A

Operating temperature: 0°C to 45°C (32°F to 113°F)
Maximum cable length: 200 m (656 feet)
Dimensions (w/h/d): 482 x 222 x 67 mm

(19 x 8 3/4 x 2 3/4 inches) including projecting parts and controls

Mass: Approx. 4.5 kg (9 lb 15 oz)

Inputs/outputs

REMOTE

CCU/CNU: 8-pin multiconnector (1) AUX: 8-pin multiconnector (1)

I/O PORT: 50-pin (1) AC IN: 3-pin (1)



 $^{^{\}star}$ No fuse or power supply cable is bundled. (MSU-700: They were bundled.)

MSU-750

Master Setup Unit

•Master Setup Unit with powerful features in a compact size (same as RCP-721 x 2) •Space-saving, suitable for OB van application •New RISC CPU adopted for high-speed digital control •Built-in software for the use in HDTV camera system •Can be used either for BVP-900/500-series camera system or HDC-700-series HDTV camera system •Enhanced control menu on the touch panel •32 scene files capability •A single MSU-750 can set up 24 camera/CCU units with 2 CNU-700s and 4 VCS-700s •No fuse or power supply cable is bundled

Supplied accessories: Operation Manual (1)

Maintenance Manual Part 1 (1)

Specifications

Mass:

100 to 240 V AC, 50/60 Hz Power requirements:

Current consumption:

0°C to 45°C (32°F to 113°F) Operating temperature:

Maximum cable length: 200 m (656 feet) Dimensions (w/h/d): 204 x 354 x 67 mm

(8 1/8 x 14 x 2 3/4 inches)

including projecting parts and controls

Approx. 3.5 kg (7 lb 11 oz)

Inputs/outputs REMOTE

CCU/CNU:

8-pin multiconnector (1) AUX. 8-pin multiconnector (1)

AC IN: 3-pin (1)



VCS-700

Video Selector

*Routes video output of multiple cameras for picture and waveform monitoring *Accepts up to 6 picture and waveform inputs *Video output selectable from the MSU-700A/750 or external control equipment through the 37-pin I/O port *Two picture and waveform outputs available for different system applications

Supplied accessories: AC power cord (1)

Plug holder for the AC power cord (1)

4-pin connector (1) Operation manual (1) Maintenance manual (1)

Specifications

General

Power requirements: 100 to 120 VAC, 50/60 Hz (NTSC area)

220 to 240 VAC, 50/60 Hz (PAL area)

Power consumption: 0.28 VA

5°C to +45 °C (73°F to +113 °F) Operating temperature:

Approx. 5.2 kg (11 lb 7 oz) Approx. 424(W) × 44(H) × 400(D)mm Dimensions:

(16 3/4 × 1 3/4 × 15 3/4 inches)

Input connectors

PIX 1 to PIX 6 input: BNC type (6) WF 1 to WF 6 input: BNC type (6)

1.0 Vp-p(VBS)/0.714 Vp-p(V), 75Ω (NTSC area) 1.0 Vp-p(VBS)/0.7 Vp-p(V), 75Ω (PAL area)





BNC type (1) PIX A input: 1.0Vp-p(VBS), 75Ω WF A input:: BNC type (1)

1.0Vp-p(VBS), 75Ω CHARACTER input: BNC type (1, with loop-through output) 0.7 Vp-p(V),

75Ω

AC in: 3-pin

Output connectors

PIX A and PIX B output: BNC type (1 each), 1.0 Vp-p(VBS), 75Ω WF A and WF B output: 1.0 Vp-p(VBS)/0.714 Vp-p(V), 75Ω (NTSC Area) 1.0 Vp-p(VBS)/0.7 Vp-p(V), 75Ω (PAL Area)

BNC type (1) SYNC output:

0.3 Vp-p(VBS), 75 Ω , negative polarity

WF mode: round 4-pin connector (1)

Remote connectors:

REMOTE: 8-pin multiconnectors (1)

I/O PORT: D-sub 37-pin(1)

ARU-701(NTSC)/701P(PAL)

Aspect Ratio Converter Unit

•Simultaneously converts a 16:9 analog video input signal to both 16:9 and 4:3 digital video signals •Wide range of analog outputs including both composite and component (either R/G/B or R-Y/Y/B-Y) in 16:9 or 4:3 format •Selectable horizontal cut-off position for 16:9 to 4:3 aspect ratio conversion •Switchable monitor output in R/G/B or VBS analog signal •High quality aspect ratio conversion using digital processing

Supplied accessories AC power cord (1)

Spare fuse (1)

Camera number labels (1) Plug retainer (1) Operation manual (1)

Specifications

. General

Power requirements: 100 to 120 VAC, 0.7 A maximum (ARU-701)

110 to 120 V/220 to 240 V, AC 0.7 A maximum

(ARU-701P)

Operating temperature: +5 °C to +45 °C (+41 °F to +113 °F) Storage temperature: -20 °C to +50 °C (-4 °F to +122 °F) Mass: Approx. 6 kg (13 lb 3 oz) Dimensions: $424(W) \times 44(H) \times 400(D)$ mm

Input connectors

ANALOG IN:

R/R-Y: BNC type (1, switchable R/R-Y),16:9 analog

component signal

R: 0.7 Vp-p, 75Ω

R-Y: 0.7 Vp-p, 75Ω (ARU-701)/0.525 Vp-p, 75Ω (ARU-701P)

(16 11/16 x 1 3/4 x 15 3/4 inches)

G/Y: BNC type (1, switchable G/Y), 16:9 analog

component signal G: $0.7 \text{ Vp-p}, 75\Omega$

Y: 0.714 Vp-p, 75Ω (ARU-701)/0.7 Vp-p, 75Ω (ARU-701P)

B/B-Y: BNC type (1, switchable B/B-Y), 16:9 analog

component signal

B: 0.7 Vp-p, 75Ω

B-Y: 0.7 Vp-p, 75Ω (ARU-701)/0.525 Vp-p, 75Ω (ARU-701P)

REFERENCE IN: BNC type (2, one as loop-through output)

Analog VBS or BB signal

Output connectors

SERIAL DIGITAL OUTPUT:

16:9: BNC type (2, aspect ratio not selectable)

10 bit 4:2:2 component serial digital vido signal,

270 Mbps

16:9/4:3: BNC type (2, aspect ratio selectable 16:9 or 4:3)

10 bit 4:2:2 component serial digital video signal,

270 Mbps

ANALOG OUT:

MONITOR: BNC type (1, aspect ratio selectable 16:9 or 4:3),

1.0 Vp-p, 75Ω

VBS: BNC type (1, aspect ratio selectable 16:9 or 4:3),

1.0 Vp-p, 75Ω

R/R-Y/VBS: BNC type (1, switchable R/R-Y/VBS)

16:9/4:3 analog component signal or analog

composite signal

R: $0.7 \text{ Vp-p}, 75\Omega$

R-Y: $0.7 \text{ Vp-p}, 75\Omega \text{ (ARU-701)/0.525 Vp-p}, 75\Omega \text{ (ARU-701P)}$

VBS: 1.0 Vp-p, 75Ω

G/Y/VBS: BNC type (1, switchable G/Y/VBS), 16:9/4:3 analog

component signal or analog composite signal

G: 0.7 Vp-p, 75Ω

Y: 0.714 Vp-p, 75Ω (ARU-701)/0.7 Vp-p, 75Ω (ARU-701P) VBS: 1.0 Vp-p, 75Ω

B/B-Y/VBS: BNC type (1, switchable B/B-Y/VBS), 16:9/4:3 analog component signal or analog composite signal

B: 0.7 Vp-p, 75Ω

B-Y: 0.7 Vp-p, 75Ω (ARU-701)/0.525 Vp-p, 75Ω (ARU-701P)

VBS: 1.0 Vp-p, 75Ω

Remote control connector

REMOTE: D-sub 15-pin (1, can control horizontal cut-off position

for aspect ratio conversion)



ARU-701P front panel



ARU-701P rear panel

ARU-702(NTSC)/702P(PAL)

Aspect Ratio Converter Unit

•Converts 4:3 analog composite and component serial digital video signals into two 16:9 analog composite signals for monitoring for each of the two inputs •Able to select between the two analog or two serial digital input signals and to select between straight-through, or a 4:3 to 16:9 conversion of the input signal •A color bar output signal selectable for setup purposes •Output synchronizing signal advanced by one line •High quality aspect ratio conversion using digital processing

AC power cord (1) Supplied accessories

Spare fuse (1)

Camera number labels (1) Plug retainer (1) Operation manual (1)



General

Power requirements: 100 to 120 V AC, 0.7 A maximum (ARU-702)

110 to 120 V/220 to 240 V, AC 0.7 A maximum

(ARU-702P)

Operating temperature: +5 °C to +45 °C (+41 °F to +113 °F) -20 °C to +50 °C (-4 °F to +122 °F) Storage temperature: Approx. 6 kg (13 lb 3 oz) Mass: Dimensions: 424(W) × 44(H) × 400(D) mm (16 11/16 × 1 3/4 × 15 3/4 inches)

Input connectors

VIDEO A

ANALOG IN: BNC type

1.0Vp-p, 75Ω (4:3/16:9) VBS: VIDEO B

ANALOG IN:

BNC type 1.0Vp-p, 75Ω (4:3/16:9)

VBS

VIDEO A

DIGITAL IN: BNC type, 10 bit 4:2:2 component serial digital video signal (4:3/16:9)

ARU-702P with front cover



ARU-702P front panel



ARU-702P rear panel

VIDEO B

DIGITAL IN: BNC type, 10 bit 4:2:2 component serial digital video

signal (4:3/16:9)

REFERENCE IN: BNC type Analog VBS or BB signal

Output connectors

VIDEO A

OUT 1 and 2: BNC type Analog VBS: 1.0Vp-p, 75Ω

VIDEO B

OUT 1 and 2: BNC type 1.0Vp-p, 75Ω

Analog VBS:

REFERENCE BNC type OUT 1 and 2:

Analog BB

Remote control connector

REMOTE: D-sub 15-pin (1), (Able to control aspect ratio and

input signal selection)

RCP-700(Joystick Type)/701 (Dial Control Type)

Remote Control Panel for HDC-700A/BVP-900/500 **Series**

•For dedicated control use like Painting (black and white), Master Black and Iris Control for daily operation •Basically used as a sub control panel to support MSU-700A/750 or RCP-740/741/730/731/720/721 in combination with MSU-700A/750 •Up to 6 units of RCP-700/701 can be mounted on a 19-inch rack drawer

Supplied accessories: Plug. 6-pin Male

Specifications

Connectors

CNU/CCU (8-pin) Remote:

Preview 6-pin

Approx. 1.0kg (2 lb 3 oz) (RCP-700) Mass: Approx. 0.9kg (2 lb) (RCP-701)

Dimensions: Approx. 68(W) × 221(H) × 127(D) mm (RCP-700)

 $(2^{3}/4 \times 8^{3}/4 \times 5)$ inches)

Approx. 68(W) × 221(H) × 83(D) mm (RCP-701)

(2 3/4 × 8 3/4 × 3 3/8 inches)



RCP-700 (Joystick)



RCP-701 (Dial Control)

RCP-720(Joystick Type)/721 (Dial Control Type)

Remote Control Panel for HDC-700A/BVP-900/500 Series

•Standard panel range including auto setup, scene file etc. to meet the reguirements for middle to large size studios and OB vehicle •Desingned for use in combination with MSU-700A/750 as a sub control panel to support MSU-700A/750 •Up to 4 units of RCP-720/721 can be monuted on a 19-inch rack drawer

Supplied accessories: Plug, 6-pin Male

Specifications

Connectors

Remote: CNU/CCU (8-pin) AUX (8-pin)

Preview: 6-pin

Mass: Approx. 1.8kg (3 lb 15 oz) (RCP-720)

Approx. 1.7kg (3 lb 12 oz) (RCP-721)

Dimensions: Approx. $102(W) \times 354(H) \times 127(D)$ mm (RCP-720)

 $(4 \% \times 14 \times 5 inches)$

Approx. 102(W) × 354(H) × 83(D) mm (RCP-721)

 $(4.1\% \times 14 \times 3.\% \text{ inches})$



RCP-720 (Joystick)



RCP-721 (Dial Control)

RCP-730(Joystick Type)/731(Dial Control type)

Remote Control Panel for HDC-700A/BVP-900/500 Series

•A new model of the RCP-700 Series with the same size of the RCP-3730/3731 in order to help users to upgrade from the BVP-370 Series control system to the BVP-900/500 Series easily •Inherits all the RCP-3730/3731 functions with the same key layout as the RCP-700 Series •Adopts LCD panel for displaying the Paint Control items •Uses LED BAR for IRIS display on the RCP-730 as same as that of the RCP-740 (Only available for Joystick Type) •Enhances the ON/OFF function of the SW Controls such as Knee, Detail, Gamma, Knee Saturation, Mono Color, Color Corrector, etc.

Supplied accessories: Plug, 6-pin Male

Specifications

Connectors

Remote: CNU/CCU (8-pin) AUX (8-pin)

Preview: 6-pin

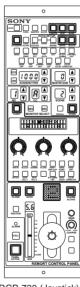
Mass: Approx. 1.9 kg (4 lb 3 oz) (RCP-730) Approx. 1.8 kg (3 lb 15 oz) (RCP-731)

Dimensions: Approx. $102(W) \times 376(H) \times 127(D)$ mm (RCP-730)

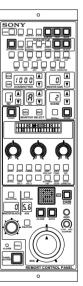
 $(4 \% \times 15 \times 5 \text{ inches})$

Approx. 102(W) × 376(H) × 83(D) mm (RCP-731)

 $(4 \% \times 15 \times 3 \% \text{ inches})$



RCP-730 (Joystick)



RCP-731 (Dial Control)

RCP-740(Joystick Type)/741(Dial Control Type)

Remote Control Panel for HDC-700A/BVP-900/500 Series

•The top range models with full control functions for sophisticated operations including paint control •Real time control, the frequently used functions controllable directly from the remote control panel •Can be used as a substitute for the MSU-700A/750 for some special applications •Up to 3 units of RCP-740/741 can be mounted on a 19 inch rack drawer

Supplied accessories: Plug, 6-pin Male

Specifications

Connectors

Remote: CNU/CCU (8-pin) AUX (8-pin)

Preview: 6-pin I/O port: 29-pin

I/O port: 29-pin
Mass: Approx. 2.3kg

lass: Approx. 2.3kg (5 lb 1 oz) (RCP-740) Approx. 2.2kg (4 lb 14 oz) (RCP-741)

Dimensions: Approx. $136(W) \times 354(H) \times 127(D)$ mm (RCP-740)

 $(5^{3}\% \times 14 \times 5 \text{ inches})$

Approx. 136(W) × 354(H) × 83(D) mm (RCP-741)

 $(5 \% \times 14 \times 3 \% \text{ inches})$



RCP-740 (Joystick)



RCP-741 (Dial Control)

CA-905K (Kings Type)/ 905F (Fischer type)

Large Lens Adaptor

•Adaptor to attach a large lens to BVP-550, BVP-570 or BVP-950/P •Compact and lightweight •Ease of lens attachment and detachment •Vertical/horizontal adjustment •Stabilizing mechanism for complete matching with the lens mount and the camera position •Combined use with 7-inch viewfinder (with BKP-9057 Viewfinder Saddle) will broaden the camera application

Specifications

Power Consumption: 90 W (w/ lens, VF and BKP-9057)

Operation temperature: -20 to + 45 °C Storage temperature: -20 to + 55 °C Mass: 12Kg

Dimensions: 368 x 327 x 534 mm

Connectors: CCU Triax (CA-905K: Kings type, CA-905F: Fischer type)

Lens 12-pin (to camera) Lens 36-pin (to lens) Command 8-pin (to camera)

Supplied accessories: Number plate x 2

Cable cramp x 2

Operation manual including BKP-9057 operation

Maintenance manual part 1

Note: There are some limitations in the combination of the CA-905 series with viewfinder and the CCU, because of the limitation of CCU in feeding power.

	CCU-550A/550AP	CCU-700A/700AP
CA-905 + BVF-55/55CE	OK	OK
CA-905 + BVF-77/77CE	OK	OK
CA-905 + BVF-7700/7700P	NO	OK

Note: When the BVP-950/950P, BVP-550, and BVP-570 is mounted on the CA-905K/T, ROM in the camera should be upgraded. (Refer to the Technical Memo.)



Lens, camera, camera adaptor, viewfinder, VF saddle, triped are optional.

BKP-9057

Viewfinder Saddle for 7-inch Viewfinder

•For mounting 7-inch viewfinder (BVF-77/77CE, BVF-7700/7700P) on the CA-905K/905F *Flexible panning *Easy handling

Specifications

Dimensions: 368 x 373 x 534 mm

(with CA-905, without viewfinder)

Mass:

Connector:

Panning degree:

Viewfinder 20-pin (to camera)
Viewfinder 25-pin (to VF)
BVP-950/950P: ± 90°
BVP-550/570: ± 30° (After the BKP-9057 is moved 20mm backward and 20mm upward, it will become

Installation manual Supplied accessories:

MS-59/60 board VF connector cable Harness Mounting screws

Note: When the BKP-9057 is used, Picture In Picture function of the 7-inch viewfinder does



RM-P9

Remote Control Unit

•Designed to control field portable cameras such as the BVP-550/90/70IS/7A/T70 series, DVW-790WS/709WS/707 series, BVW-D600 series and DNW-7/9WS/90/90WS series, Betacam SX camcorders.

Supplied accessories: 6-pin remote control cable (10m)

Operation and maintenance manual

Specifications

Power consumption: 0.5W

Mass: 0.5 kg (1 lb 2 oz)

86(W) × 179(H) × 65(D)mm Dimensions:

(3 1/2 × 7 1/8 × 1 7/8 inches)

Remote control connector:

Output connector: BNC type



RM-B150

Remote Control Unit

Designed to control field portable cameras such as the HDC-750A, BVP-950/950P/570, CA-570/550/530 and HDW-700A series HDCAM camcorders and DVW-790WS/709WS/707 series Digital Betacam camcorders.

Supplied accessories: Remote control cable (10 m)

Operation manual (1) Maintenance manual (1)

Specifications

0.5 kg (1 lb 2oz) Dimensions (W/H/D): 86 × 67 × 179 mm $(3 \frac{1}{2} \times 2 \frac{3}{4} \times 7 \frac{1}{8} \text{ inches})$

3 W (max.), 1.3 W (with the Menu Display off), Power requirement:

1.8 W (with the Menu Display on) -20 °C to +45 °C (-4 °F to + 113 °F) Operating temperature: -20 °C to + 60 °C (-4 °F to + 132 °F)

Storage temperature: Remote control connector:

BNC type Output connector:



BVF-7700(NTSC)/7700P(PAL)

7-inch Color Viewfinder

•Specially designed for use with BVP-900, CA-905 series-for direct camera installation •Compact size with reduced height, light weight and low power consumption •Wide range of mechanical positioning and fixed center of gravity •420 TV lines resolution •Wide peaking range contributes to a very crisp image and accurate focusing •Large, very easy to see tally lamps •Underscan display

Specifications

CRT: 7-inch 70-degree deflection

Aperture grille pitch: 0.21mm (center) 0.30mm (corner) Screen size: 116 × 87mm (normal)

Tilting angle: +60°/-40°

Brightness: More than 154cd/m 2 (45fL) Resolution: More than 420 lines (center) More than 300 lines (corner)

Geometric distortion: A zone: within 1.0%

B zone: within 2.0% A zone: less than 0.2mm

Convergence: B zone: less than 0.3mm



Within 1.5% in Zone A Linearity:

Stability of raster size: Within 2%

Contrast/Brightness/Peaking Controls:

Peaking SW/Degauss SW Power SW/Scan Size SW

Aperture correction: 0 to 20dB 6500K+8MPCD Color temperature: DC 10.5 to 17.0V Power requirements:

DC 12.0 (typical)

Power consumption:

Mass: Approx. 6.2 kg (13 lb 11 oz)

Approx. 265(W) × 188(H) × 359(D)mm Dimensions:

(10 1/2 x 7 1/2 x 14 1/4 inches)





BVF-77(EIA)/77CE(CCIR)

7-inch B/W Viewfinder

•Specially designed for use with BVP-900/500 series –for direct camera installation •Can be attached to the CA-905 •Compact size with reduced height, light weight and low power consumption •Wide range of mechanical positioning and fixed center of gravity •Extremely high center resolution of 800 TV lines and wide peaking range contribute to a very crisp image and accurate focusing •Large, very easy to see tally lamps •Underscan display

Specifications

CRT: 7-inch 90-degree deflection Screen size: 120 × 90mm (normal)

Tilting angle: +60°/-40°

Brightness: More than 500cd/m 2 (146fL)

Resolution: 800 lines (center) 600 lines (corner)

Geometric distortion: Within 1.0% Linearity: Within 3%

Stability of raster size: Within 2%

Controls: Contrast/Brightness/Peaking

Peaking SW/Power SW Scan Size SW

Aperture correction: 0 to 15dB
Power requirements: DC 10.5 to 17.0V
DC 12.0 (typical)

Power consumption: 23W

Mass: Approx. 5.0 kg (11 lb)

Dimensions: Approx. $265(W) \times 178(H) \times 321(D)$ mm

 $(10 \frac{1}{2} \times 7 \frac{1}{8} \times 12 \frac{3}{4} \text{ inches})$





BVF-55(EIA)/55CE(CCIR)

5-inch B/W Viewfinder

•650 TV lines of resolution at center •High brightness—600NIT •Adjustable center position marker with ON/OFF switch •Panning and tilting facility •Easy installation and handling •Can be attached to the CA-550/570/905/705/

Supplied accessories: Connecting cables (12-pin-20-pin)

Slide shoe

V wedge shoe attachment Screws Monitor hood for studio use

Specifications

Screen size: $73(H) \times 97(W)$ mm underscan (2 $\frac{7}{8} \times 3 \frac{7}{8}$ inches)

Power requirements: DC 12 V Power consumption: DC 12 V

Resolution: 650 TV lines at center 550 TV lines at corners

Picture distortion: Less than 3 %

Operating temperature: -10 °C to +50 °C (+14 °F to +122 °F)

Mass: 1.9 kg (4 lb 3 oz)

Dimensions: $191(W) \times 188(H) \times 291(D)mm$

(7 5/8 × 7 1/2 × 11 1/2 inches)





BVF-20W/20WCE

Electronic B/W CRT Viewfinder

•2-inch 16:9 widescreen B/W CRT viewfinder for the portable camera (BVP-950/950P/570) •High resolution-600 TV lines at center in both 16:9 and 4:3 modes •Diagonal size is 1.5inch in 4:3 mode and 2.0-inch in 16:9 mode to ensure easy focusing even in 16:9 mode •16:9/4:3 automatic switching-when used in 16:9 mode 4:3 limits and box cursors can be selected from the camera to help in shooting 16:9 material that may be converted later into the 4:3 standard •The eye-piece is removable from the viewfinder to allow direct view of the CRT •Tally lamp for camera operator is located on the viewfinder body for operational convenience. So that, the tally lamp can be seen even when not looking at the viewfinder screen. It also can be masked with a sliding cover. •Supplied with a new external microphone

Supplied accessories: Microphone (1)

Operation manual (1)

Optional accessories: BKW-401, viewfinder rotation

bracket

Fog-proof filter (Part No. 1-547-341-11) Lens assembly (farsighted) (-2.8 D to +2.0D)

(Part No. A-8262-537-A)

Lens assembly (low magnification) (-3.6D to -0.8D)

(Part No. A-8262-538-A)

Lens assembly (standard magnification with special compensation for aberrations) (-3.6D to +0.4D)

(Part No. A-8267-737-A)

Lens assembly (high-performance triple

magnification) (-3.6D to +0.4D)

(Part No. A-8314-798-A)



Specifications

. General

Power requirements: 9.3 V DC Power consumption: 2.3 W

-20°C to +45°C (-4°F to +113°F) Operating temperature: -20°C to +60°C (-4°F to +140°F) Storage temperature: External dimensions: $229(W) \times 76(H) \times 215(D) \text{ mm}$ (9 ½ × 3 × 8 ¼ inches)

Mass: 580g (1 lb 4 oz)

Performance

CRT: 2-inch monochrome Horizontal resolution: 600 TV lines (at center) REC/TALLY, BATT, VTR, SAVE,! Indicators

Compensation for aberrations:

-3.6D to +0.4D

BVF-10(EIA)/10CE(CCIR)

Electronic B/W CRT viewfinder

•1.5-inch 4:3 standard B/W CRT viewfinder for portable cameras such as BVP-950/950P/570 •High resolution-600 TV lines at center •The eye-piece is removable from the viewfinder to allow direct view of the CRT •Supplied with a new external microphone

Supplied accessory: Microphone (1)

Operation manual (1)

Specifications

General

Power requirements: 9.3V DC power consumption:

Operating temperature: -20°C to +45°C (-4°F to +113°F) Storage temperature: -20°C to +60°C (-4°F to +140°F) 229(W) × 76(H) × 215(D) mm External dimensions: (91/8 × 3 × 81/2 inches) Mass:

Approx. 530g (1 lb 3 oz)

Performance

1.5-inch monochrome Horizontal resolution: 600 TV lines (at center) REC/TALLY, BATT Indicators



BVF-C10W

Electronic Color Viewfinder

•1.35-inch 16:9 widescreen color LCD (510K dots) viewfinder for the portable camera (BVP-950/950P/570) •Attains noninterlace, high vertical resolution and less flicker by using Sony Line Doubler (Double-speed conversion) •High resolution of 400 TV lines in both 16:9 and 4:3 modes with excellent color gradation capable of showing the finest detail •16:9/4:3 automatic switching—when used in 16:9 mode, 4:3 limits and box cursors can be selected to help in shooting 16:9 material that may be converted later into the 4:3 standard •Peaking is shown in yellow for easy focusing •Return signal can be monitored in color •World-wide modelautomatically responds to the video system, NTSC or PAL •High performance triple magnification lens for better visibility •The eye-piece is removable from the viewfinder to allow direct view of the LCD •Tally lamp for camera operator is located on the viewfinder body for operational convenience. So that, the tally lamp can be seen even when not looking at the viewfinder screen. It also can be masked with a sliding cover. •Supplied with a new external microphone

Supplied accessories:

Microphone (1)

Operation manual (1)

Optional accessories: BKW-401, viewfinder rotation

bracket

Fog-proof filter (Part No. 1-547-341-11) Lens assembly (farsighted) (-2.8 D to +2.0D)

(Part No. A-8262-537-A)

Lens assembly (low magnification) (-3.6D to -0.8D) (Part No. A-8262-538-A) Lens assembly (standard magnification with special Cushioned eyecup: Pad (Part No. X-3678-187-1)

Attachment (Part No. 3-682-494-02)



Specifications

General

Power requirements: 12.0V DC power consumption: 5.9W

Operating temperature: 0°C to +45°C (+32°F to +113°F) Storage temperature: -20°C to +60°C (+32°F to +140°F) External dimensions: $229(W) \times 76(H) \times 215(D)mm$ (9 1/2 × 3 1/4 × 8 1/4 inches)

Mass: 715g (1 lb 9 oz)

Performance

 LCD:
 Active matrix TFT LCD

 Screen size:
 1.35-inch

 Number of active dots:
 512,880 (16:9)

 383,760 (4:3)

 Horizontal resolution:
 400 TV lines

Indicators:

: REC/TALLY, BATT, VTR SAVE, !

VFH-770

7-inch Viewfinder Sports Hood for BVF-7700/77 series



VFH-550

5-inch Viewfinder Sports Hood for BVF-55 series



CA-553

Betacam 50P I/F adaptor for the BVP-950/950P/570, dockable with the CA-3A/50A*/50AP*/55A*/55AP*/57A*/57AP*/BVV-5 series and DNV-5

* Can not be connected with BVP-900 series.



CAC-6

Return Video Selector for Studio and Portable Camera



CAC-12

Camera Mic Holder



RMM-301

Rack Mounting Bracket for CCU-350/355/550 Series

Specifications

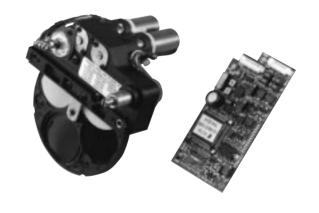
Dimensions:

 $482(W) \times 132(H) \times 330(D)mm$ (19 1/8 × 5 1/4 × 13 inches) Mass: 4.7 kg (10 lb 6 oz)



BKDW-701

Servo filter unit for use with OHB-550/550P/ 550WS/550WSP/455WSP



BKP-5530

Carrying handle for BVP-570/550

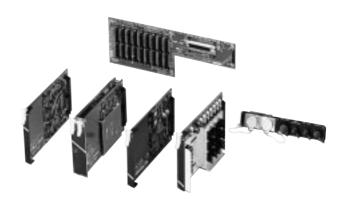
The BKP-5530 handle is a substitute handle for the one supplied with the CA-553. Attach this handle when the CA-553 is connected to the Sony BVP-550/570 color video camera along with the BVV-5/5PS portable video recorder.



BKP-7090

Sony Camera Upgrade Unit for BVP-700/700P

*BKP-7090 is an Upgrade Kit to realize the same features as BVP-900/900P by exchanging mother board and the signal processor boards of BVP-700/700P



BKP-7091

Sony Camera Upgrade Unit for OHB-750/750P•BKP-7091 is an Upgrade Kit to make possible OHB-750 using for BVP-900/950. Upgraded OHB-750 can be used with BVP-700/750 as ever. PAL model (OHB-750P) and widescreen model (OHB-750W and OHB-750WP) can also be upgrade with partial modification.





BKP-7900

Extension Board for the CCU-700A/700AP and CNU-700



BKP-7910/7910P

Standalone Unit for the BVP-900/900P



BKP-7911

Script Holder, one-page type with lamp for the HDC-700A/BVP-900/900P/500/500P



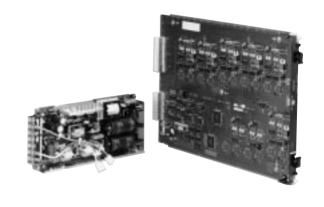
BKP-7912

Script Holder, two-page type with lamp for the HDC-700A/BVP-900/900P/500/500P



BKP-7930

Expansion Board for system expansion up to 12 cameras for the CNU-700



BKP-7931/7931P

Sub Encoder Board for the CCU-700A/700AP



BKP-7932

Camera Adaptor Modification Unit

•The BKP-7932 is a modification kit used to upgrade the BVP-370 Series camera systems to work with the HDC-700,BVP-900/700/500 Series. It consists of one IF-602 board and one connector assembly. By slotting the IF-602 into the CNU-700 and installing the connector assembly on its rear panel, up to six CCU-370/355/350/9000 and DCU-371/371WS Series CCUs can be connected to the CNU-700. So that the BVP-370 Series cameras can be controlled from the MSU-700 via the CNU-700.

BKP-7933

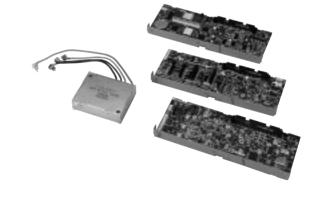
S-Bus interface board for the CNU-700

•Installing the BKP-7933 with CNU-700, Sony routing switcher can be controlled by using the S-Bus interface.
•Switch the Sony router's cross point from MSU-700A/750 camera select •RCP assignment with PIX/WFM assign
•Change RCP assignment from S-bus equipment •RCP Preview video select with router •Receive and display the source name set on the CNU character display •Decode the serial tally and transfer to CCU

BKP-590

Camera Adaptor Modification Unit

The BKP-590 is an optional board kit used to modify the CA-57A/57AP for connection to the camera control system of the BVP-900/500 Series. It consists of MD, TR, IF boards, and MPX filter. In place of the corresponding boards and filter in the CA-57A/57AP with the BKP-590, the BVP-7A/70IS/90/T7A/T70 series can integrated into the camera control system of the HDC-700A/BVP-900/500 Series.



BKP-5090

Sony Camera Upgrade Unit for BVP-500/500P/550•BKP-5090 is an Upgrade Kit to realize the same features as BVP-900/900P/950/950P by exchanging PR board of the BVP-500/500P/550.





BKP-5091

Sony Camera Upgrade Unit for OHB-405WS/455WS/T450WS/500WS/550WS

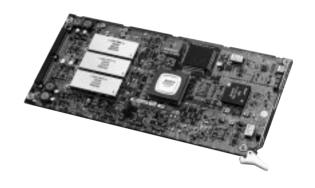
•BKP-5091 is an Upgrade Kit to make possible OHB-405WS/455WS/T450WS/500WS/550WS using for BVP-570 12-bit camera and BVP-500/500P/550 12-bit upgraded camera.



BKP-5972

Serial Digital Interface Output Board

•By slotting the BKP-5972 board into the CCU-550A/550AP, two SDI outputs are available for direct connection to other digital equipment with an SDI interface •With an SDI connection to a Digital VTR, such as the DVW-250/250P, the digital component video signal from the CCU, together with its two digital audio channels, are carried over a single BNC cable



BKP-5973

Control Panel

•The BKP-5973 Control Panel fits on the front of the CCU-550A/550AP and provides rapid, finger-tip access to the main operational controls •Up to three Scene Files, which are used to store and recall key operational control parameters, are available on the BKP-5973 and white balance for two different color temperature shooting conditions can be stored in memory for later recall •By using the on-screen menu control and three rotary switches on the BKP-5973, a wide range of set-up parameters can be adjusted



BKP-5974

DC Power Unit

The supplied AC power unit can be removed from the CCU-550A/550AP and replaced with the BKP-5974 DC Power Unit, allowing operation from a DC 12V supply. This DC operation function is very useful in extending flexibility in OB applications.



BKP-5976/5976P

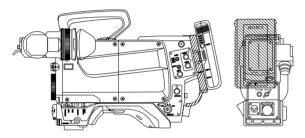
CCU Upgrade Kit

•For upgrading CCU-550 to CCU-550A •Consisting of AC power unit and rear panel for the replacement •After the upgrade, the connected portable camera (BVP-950/570/550) can be used with a large studio lens (on CA-905 Large Lens Adaptor) and BVF-77 seven-inch viewfinder (on BKP-9057 Viewfinder Saddle)

BKP-L551

Li-ion Battery Adaptor

•With the BKP-L551, the BP-L60A/BP-L90A can be used with the CA-550/57A/55A/50A/3A series •The BKP-L551 can be directly attached to the rear part of the CAs by using screws or through a battery table assembly





BKP-7934

MSU Upgrade Kit

•Circuit board to upgrade the MSU-700 to MSU-700A

•Accelerates the speed of the MSU-700 control system to the same level as the MSU-700A •No need to change the connector panel and power supply •The upgraded MSU-700 has the same performance as the MSU-700A

10

Telecine

FVS-1000	System	 	 174
L 12-1000	System	 	 1/4

FVS-1000 System

Multi Resolution Telecine

•Independent RGB CCDs with two-million pixel resolution that capture the full resolution and colorimetry of films •Independent RGB light intensity controls using fast-action light valves for excellent primary color correction •Dust and scratches on the film concealed by use of integrating sphere to provide diffused light path •Film and video gamma controls for precise color matching •True HD 4:4:4 signal processing at high-level quantization realize real-time film transfer without picture degradation

- 12-bit logarithmic RGB at 74 MHz in film domain
- Max.16-bit linear RGB at 74 MHz in video domain
- •Optical and digital frame trimming including pan-scan, zoom, rotation, and anamorphic conversion •Dedicated Skin Tone Detail and image enhancers for SDTV and HDTV signal path •Built-in simple wipe generator and frame store •Multiresolution output allows multi-purpose operation
 - HDTV: 1080 active lines, 10 bits, R/G/B or Y/R-Y/B-Y
 - SDTV: 525 lines, 10 bits, R/G/B or Y/R-Y/B-Y
 - SDTV: 625 lines, 10 bits, R/G/B or Y/R-Y/B-Y
- •Excellent image stability and gentle film handling
 - Sony Optical Picture Stabilizer gives pin-registration quality without any mechanical registration
- •Film transport uses intermittent and continuous sprocket drives under servomechanism to provide VTR-like motion control •Flexible system integration with industry-standard telecine peripherals:
 - Telecine controllers
 - Secondary color correction systems
 - Noise reducers
 - Dirt/Scratch removers
 - Key code readers

System Configuration

FVS-T1000 Multi Resolution Telecine FVS-P1000 Telecine Processor Unit BKFV-100 **HDTV Processing Boards** Dual HD-SDI Processing Board BKFV-110 BKFV-200 SDTV Processing Boards Anamorphic Conversion Lens BKFV-410 BKFV-420 Telecine Mounted Slide Kit

Specifications

General

Mechanical dimensions 1175 (W) x 1798 (H) x 780 (D) mm (46 3/8 x 71 1/4 x 30 3/4 inches) Mass: Approx. 500 kg (1100 lb 37 oz)

Power consumption: Approx. 2.5 kW

Film Transport System

Film format: 35 mm, Super 35 mm (4&3 perforation), Anamorphic

16 mm, Super 16 mm

Film type: Negatives, Prints, Inter positives

3&4 perf. 35 mm film gate with perf. position detector Film gate:

35 mm slide gate

16 mm film gate with perforation position detector

Film capacity: Max. 3000 ft.

Film drive Sprocket driven by AC servo motors

23.976, 24, 24.975, 25, 29.97, 30 Fps forward and Film frame rate:

Step mode: Rapid and precise single step with full quality

Stop mode: Full quality active stop

Visible shuttle mode: Max. 5 times normal playback speed at 35 mm Film,

7 times at 16 m Film.

Variable mode: ±2 times normal play speed

Better than ±0.05 % of film frame height and width Picture stability:

with Sony Optical Picture Stabilizer; Capacitive, two dimensional, multiple perforation sensing with dual-

axis optical compensation



Vertical framing adjustment:

Adjustment of vertical framing by single perforation

step in forward and reverse mode.

Film Image Acquisition System

Image acquisition device:

Gamma control:

System

Frame store:

3-chip 2 million pixels Frame Interline Transfer (FIT)

type area array CCD Xenon lamp 300 W

Light source: Light valve: R, G and B independent digital control

Diffuser: Integrating sphere

Primary Color Correction System

Optical gain control: R, G and B independent intensity control.

Electrical gain control: R, G, B and Master Pedestal range R. G. B and Master

White/black shading: Para and Saw independent horizontal, vertical and R,

> Negative, Print and Inter positive. Pre-setting with coarse and fine control

Sampling rate and quantization:

3 @ 12-bit logarithmic R/G/B independent @ 74 MHz

HDTV Functions The FVS-1000 System accommodates up to two

(BKFV-110) processing boards.

channels of HD SDI (BKFV-100) and/or Dual HD SDI

1080/60i 1080/59.94i 1080/50i 1080/24PsF 1080/23.976PsF

Flectrical zoom: 0.5x to 4x

Independent X and Y sizing X-Y panning and repositioning Anamorphic unsqueeze 2:1 Independent X, Y, size and position

Blanking control: Image enhancer:

Crispening Level depend

Detail gain control for reference frame 4 frame @ HD 4:4:4

Wipe: Horizontal and vertical split screen with border

adjustment

Source selection: main, input, frame store

Signal-to-noise ratio: for luminance better than 58 dB Measured at 50 % video level,

The ratio being 700 mV divided by r.m.s noise voltage

10 Telecine

with BKFV-100: HD SDI (4:2:2) - max. 2 channels Video input:

with BKFV-110: Dual HD SDI (4:4:4)

with BKFV-100: HD SDI w/char & HD SDI (4:2:2) Video output:

with BKFV-110: Dual HD SDI (4:4:4)

Sequence output: Pull-down sequence pulse

SDTV Functions The FVS-1000 System is furnished with one SDI

processing channel.

A second channel can be configured by adding the

BKFV-200 SDTV processing board.

System: 525/625 switchable

525/59.94i 625/50i 625/49.95i 625/48i 625/47.952i

Frame-based pixel assignment from 1920 x 1080:

Crop Squeeze Letter box

Electrical zoom: 0.25x to 4x

> Independent X and Y sizing X-Y panning and repositioning Anamorphic unsqueeze 2:1

Independent X, Y, size and position Blanking control:

Image enhancer: Crispening Level depend Detail gain control

Frame store: for reference frame

16 frame @ SD 8:8:8 Wipe: Horizontal and vertical split screen with border

adjustment

Source selection: main, input, frame store

Signal-to-noise ratio: Better than 62 dB

Measured at 50 % video level, gamma=0.4,

The ratio being 700 mV divided by r.m.s noise voltage

Video input: D-1 SDI (4:2:2) - max. 3 channels or dual D-1 SDI

(4:4:4, 8:4:4) D-1 SDI (4:2:2)

Video output: D-1 SDI w/character

Dual D-1 SDI (4:4:4, 8:4:4) or D-1 SDI (3)

Monitor out (analog composite) Monitor out w/character

Sequence output: Pull-down sequence pulse

Reference Input / Output

Trilevel sync HD input / output:

field rate: 60 / 59.94 50 / 49.95 48 / 47.952

SD input / output: Black burst (NTSC / PAL)

525 sync 625 sync

field rate: 50 / 49.95 48 / 47.952

Remote Interface

Telecine controller I/F, D-sub 9-pin RS-422:

11

Editing Control Unit

BVE-9100/9100P	178
BVE-2000	180
B\/F-600	181

11 Editing Control Unit

BVE-9100 (NTSC)/9100P (PAL)

Hybrid Editing Systems

- •Fast CPU processing—32bit CPU running at 20MHz
- •Large memory capacity—Approx. 4.5Mbytes
- •Standard color display monitor interface •Optional color corrector interface for BVX-D10 •Modular design—system expansion via a variety of optional BKE boards/units and BZE softwares
- •Full system interface
- Parallel or serial video switcher interface
- Parallel or serial audio mixer interface
- Direct DME interface
- 14 VTR/DDR control (can assign up to 8 VTRs as recorders or 12 as players)
- 4 standard GPI ports and 32 optional GPI ports
- 2 standard RS-232C printer ports
- •Full list management •Four channel audio control •DMC/ switcher/mixer/color corrector learn functions •Two type editing keyboards, qwerty style and dedicated style •16 user programmable keys •Keyboard reassignment function
- •ACTION TRACK (enhanced timetrack operation) capability
- •Subkeyboard with 30 × 3 assignable keys •Character superimposing on picture monitor •Self-diagnostics

Supplied accessories: 3.5 inch micro floppydisk with based program

System disk × 2 Extension board AC power cord

15-pin D-sub connector (male) 25-pin D-sub connector (male) 9-pin D-sub connector (male)

Rack angle set Plug holder Indicator label

Operation and maintenance manual

Specifications

Power requirements: AC 100 to 240 V, 50/60 Hz (±10%)
Power consumption: 60 W (incl. 7 BKE boards)
Operating temperature: 5 to 35 °C (41 to 95 °F)
Storage temperature: -20 to 60 °C (-4 to 140 °F)

Dimensions: Approx. $424(W) \times 220(H) \times 480(D)mm$

 $(16\% \times 8\% \times 19 \text{ inches})$

Mass: Approx. 21 kg (46 lb 5 oz) excl. optional boards System: 32-bit microprocessor with 4 Mbytes DRAM and

512 kbytes SRAM

Editing reference: CTL, LTC and VITC (SMPTE/EBU time codes)
Editing accuracy: ±0 frame in time code operation (normal play mode)

EDL memory capacity: 6000 edits/lines



Photo shows BVE-9100 system

BVE-9100 Optional System Components and Accessories

•	<u> </u>
Model Name	Description
BKE-9000K1	BVE-9000 Expansion Kit
BKE-9002	4 × Intelligent Device Controller Interface
BKE-9011	Video Switcher/Audio Mixer/Monitor Switcher Interface
BKE-9014	Sony 9-pin Interface*1
BKE-9107	Hard Disk Unit
BKE-9400A*2	Editing Keyboard (Qwerty type)
BKE-9401*3	Sub Keyboard
BKE-9402	Programmable Control Panel
BKE-9410*2	Editing Keyboard (Dedicated)
BKE-9600	Intelligent Device Controller
BKE-9601	Time Code Generator/Reader
BKE-9602	Character Superimposer
BKE-9603	Expansion RAM Board (for serial switcher interface)
BKE-9604	Component Character Superimposer
BKE-9611	9-pin VTR Control/Character Superimposer Control
	ROM Kit
BKE-9612	Sony Multicassete system Control ROM
BKE-9631	Parallel Switcher Interface
BKE-9632	Parallel Mixer Interface
BKE-9633	Monitor Switcher Interface
BKE-9651	General Purpose Interface Kit (16 ports)
BZE-9101	Basic Operating Program
BZE-9102	Advanced Operating Program
BZE-9124	Multi-format Operating Software
BZE-9601	Switcher Control Program
	(GVG® 100/1680/300, Sony HDS-1000T)
BZE-9602	Switcher Control Program (GVG 200/2200/3000/4000)
BZE-9603	Switcher Control Program (GVG Kadenza [™])
BZE-9604	Switcher Control Program
	(Sony DVS-8000/BVS-3000 series)
BZE-9605	Switcher Control Program (Abekas® A84/A82/A83)
BZE-9606	Switcher Control Program (Ampex AVC VISTA™ series)
BZE-9611	Mixer Control Program
	(Sony VSP-8000,DMX-E3000, Graham-Patten
	GPS-600 series, D-ESAM 200/400/800/820)
CPD-Series	Data Display Monitor (Color)
VMC-30V	Color Monitor Cable (30m)
RCC-5G/10G/30G	Remote Control Cable (5m, 10m, 30m)

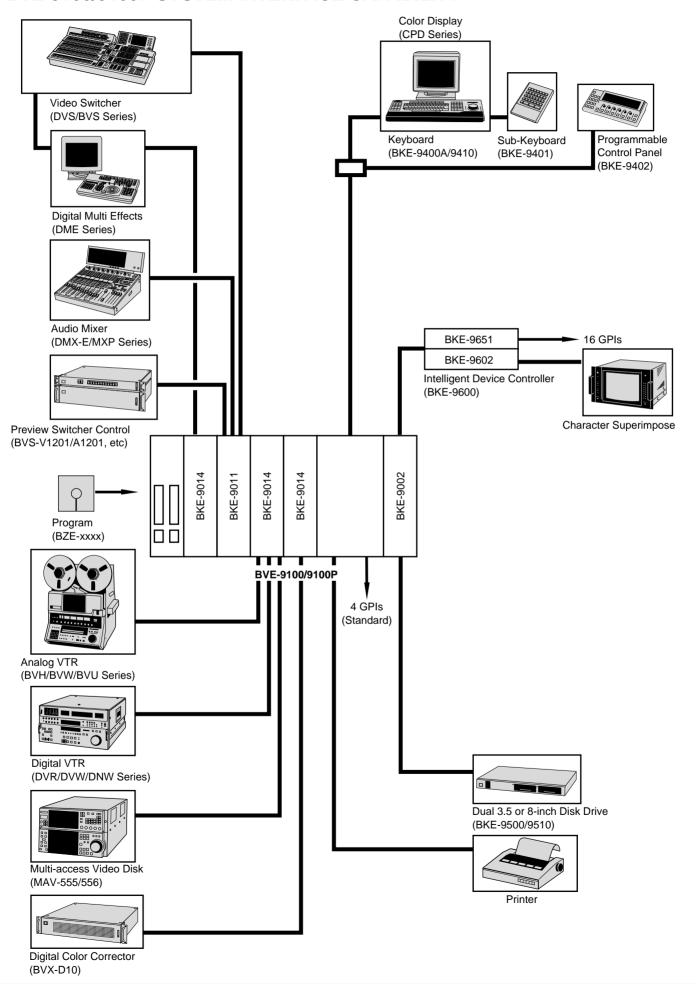
^{*1:} The BKE-9014 board allows the BVE-9100 to interface with Sony VTRs, Sony DMEs, Sony BVX-D10 Color Corrector, GVG 100, Ampex VPR-3/6 or Kaleidoscope™. By exchanging EPROMs (supplied) on the board, possible combination and number of the controlled devices can be changed. Please ask your nearest Sony office about further information.

^{*2: 15-}pin (30m) keyboard cable is supplied with the BKE-9400A and BKE-9410.

^{*3: 15-}pin (1.2m) keyboard cable is supplied with the BKE-9401

EDITING CONTROL I

BVE-9100/9100P SYSTEM INTERFACE CAPABILITY



11 Editing Control Unit

BVE-2000

Editing Control Unit

- •Maximum six VTRs can be controlled in A/B roll editing
- •Three auxiliary sources •Powerful switcher interface via serial and parallel control
- -Fader, wipes, dissolves, kever and DSK control
- —Save/recall of initial panel settings for the DVS-2000C. BVS-3000 series, DFS-300/500/700, and GVG-100
- -Control of E-File/E-MEM/Snapshot WRITE/READ functions of DVS-2000C, BVS-3000 series, DFS-300/500/700 and GVG-100
- -Monitor switcher control
- •Four audio channel control •PCM-7030/7050 audio memory control capability •List Management facility
- -INSERT, DELETE, MOVE, COPY, CORRECT, SORT, MODIFY, and CLEAN UP functions
- -RIPPLE function
- -998 event memory capacity
- •Built-in 3.5-inch floppy disk drive •Any combination of LTC, VITC and CTL editing •Discontinuous time code source can be handled •20 user programmable keys •Automatic time tracking allows automatic calculation of the player matched frame •ACTION TRACK, SCROLL TRACK, PLAYER TRACK, RECORDER TRACK operation possible •Advanced graphic effect mode display •Two recorder operation capability •Temporary recorder assignment possible Synchronization accuracy selection provides synchronization using various time code grades, or no time code at all

Specification

AC 100 to 240 V, ±10% Power requirements:

48 to 64 Hz

28 W max. including all BKE boards Power consumption:

0 to 35 °C (32 to 95 °F) Operating temperature:

-40 to 60 °C (-40 to 140 °F) Storage temperature:

Processor: Approx. 390(W) × 93(H) × 265(D)mm Dimensions:

(163/4 × 51/4 × 137/8 inches) Keyboard: Approx. 424(W) × 65(H) × 258(D)mm (163/4 x 25/8 x 101/4 inches)

Processor: Approx. 11 kg (25 lb 4 oz)

Mass: Keyboard: Approx. 2.3 kg (5 lb 1 oz) Editing reference: CTL, RTC, SMPTE/EBU Time Code

Edit accuracy: ±0 frame with time code

Memory capacity: 998 events

VTR interface: RS-422A 9-pin remote connector





Switcher interface: RS-422A 9-pin remote connector Mixer interface: 9-pin/15-pin serial/parallel connectors GPI: 8 ports, programmable pulse output

2 × RS-232C programmable BAUD rate and bit External edit control:

Video and reference signal:

External sync input -0.2 to 5.0 Vp-p 1.0 ±0.2 Vp-p

video signal, 75 Ω

Reference video input -0.1 ± 0.2 Vp-p, 75 Ω

(when BKE-2030/2031 fitted) VDU output 1.0 V \pm 0.3 Vp-p 75 Ω

Supplied accessories: Maintenance manual

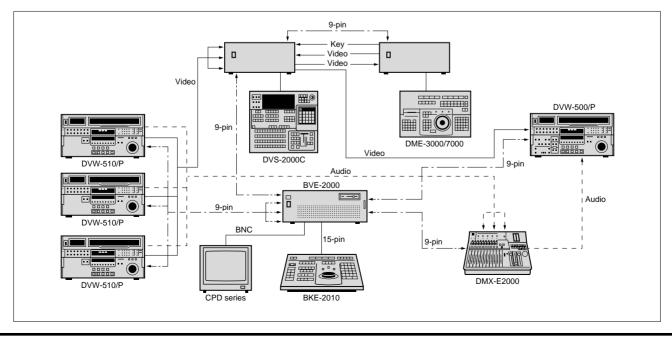
> User's guide Operation manual 25-pin D-sub male Rack mount screws AC power cord

Optional accessories: BKE-2010 Editing keyboard

BKE-2011 Editing Keyboard (Qwerty type) BKE-2020 Expanded RS-422A I/F board BKE-2030 NTSC color framing detector board BKE-2031 PAL color framing detector board

Peripherals: CPD Series Data display monitor

BVS-V1201 Video monitor switcher BVS-A1201 Audio monitor switcher



11 Editing Control Unit

BVE-600 (NTSC/PAL)

Editing Control Unit

- •Plug-in optional switcher boards enable simple A/B roll editing without an external switcher
- Cut, Dissolve, Wipe (ten wipe patterns), and Title superimpose (B/W)
- Either composite or component switcher board selectable
- Various edit data can be superimposed onto the main monitor
- Background, color bar, and black signals can be generated
- •Up to three VTRs (one recorder and two players) can be controlled in an A/B roll edit •The two search dial operation enabling guick and easy access to edit points •Audio mixer interface for VSP-A600 or MXP-290 •VITC/LTC/CTL editing •Two GPI ports (T1, T2 pulses) •Dynamic Motion Control
- •Audio/Video split editing possible •Automatic time tracking •Color frame editing possible

Supplied accessories: AC power cord

15-pin mixer control cable

Operation and maintenance manual

Specifications

GENERAL

Power requirements: AC 90 to 132 V, 198 to 264 V

Power consumption: Max. 110 W

Operating temperature: 0 to 45 °C (32 to 113 °F) Storage temperature: -40 to 60 °C (-40 to 140 °F)

Approx. $440(W) \times 175(H) \times 574(D)mm$ Dimensions:

 $(17\% \times 7 \times 22\% \text{ inches})$

Mass: Approx. 11.6 kg (25 lb 9 oz) without option boards

Approx. 13.8 kg (30 lb 7 oz) with BKE-611/612 Approx. 15.2 kg (33 lb 8 oz) with BKE-621/622

SYSTEMS

Edit reference: CTL, LTC, LTC/VITC (SMPTE/EBU time code) Edit accuracy: ±0 frame on time code, ±1 frame on CTL

Memory capacity:

Transition control: 0 to 9.9 seconds (in 0.1 s step)

CONTROL

VTR interface: RS-422, Sony 9-pin remote connector

Controllable VTR: 1 recorder, up to 2 players

RS-232C interface: Printer interface for edit point data output

BNC (2) (T1, T2 pulse out) Mixer interface: 15-pin D-sub (1)

for VSP-A600/MXP-290 interface

Display: LED display, 8 digit (3)

BVE-600 OPTIONAL BOARD KIT

BKE-611 NTSC composite switcher board BKF-612 PAL composite switcher board

NTSC component/composite switcher board BKE-621 BKE-622 PAL component/composite switcher board

BKE-611/612



BKF-621/622



BVE-600 OPTIONAL CABLES

RCC-30A Parallel Audio Mixer Interface Cable (30 m, 15-pin D-sub) RCC-5G/10G/30G Remote Control Cable (5 m/10 m/30 m, 9-pin)





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Digital Video Switcher

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DVS-7350/7300 System (NTSC, 525/60, 625/50)

Digital Video Switcher

- •Two alternative versions a 3 M/E type and a 3 M/E plus PGM/PST type •5 alternative switcher panel designs to meet particular applications •Component 525/625 and composite NTSC 525 switchable •Primary inputs extendable up to 36 (60 when DVS-V6464B or DVS-V6464M is connected) by using optional boards:
- -Composite type: serial composite digital and/or NTSC input boards
- —Component type: serial component digital input boards
- •Two independent key processors with priority control and a color background generator for each M/E •The DMK-7000 digital multikeyer provides the DVS-7350/7300 System with up to 4 DSKs, allowing 10 simultaneous key layers •14 (28 when DVS-V6464B or DVS-V6464M is connected) auxiliary buses •Source name display on the control panels •FlexiPad™ for simple operator recall of wipe/DME-LINK™ patterns and snapshots •Four convenient remote panels - the BKDS-7060 keyer remote control panel, the BKDS-2010 sub control panel, and the BKDS-7080/7081 AUX bus remote panels •Four optional, add-in panels are available for Key Frame control, DME control, DSK control (for 3 M/E system), and memory recall control •High quality chromakeyer (option) - 4:4:4:4 video/key processing, shadow control, spot color modify, etc. •Powerful switcher memory system, including Keyframe Effect memory (option), Key snapshot and Snapshot memory •Processed key function •Two frame memories (option) •BVE-9100 Editing System serial control •Video processing for primary inputs •Intelligent tally system for live operation (with BKDS-7700) •Remote control of Sony DVS-B Series routing switchers (with BKDS-7700) •Compact processor and low power consumption •Redundant power supplies for processor and control panel (options)

Rack mounting angles (pre-installed) (1 set) Supplied accessories:

75 Ω terminator (1) 9-pin adaptor (1) Operation manual (1) Installation manual (1) Maintenance manual part 1 (1)

System Configurations

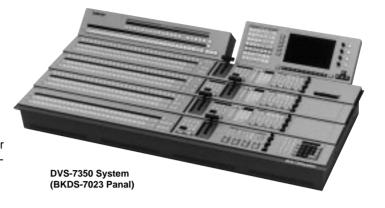
PROCESSOR

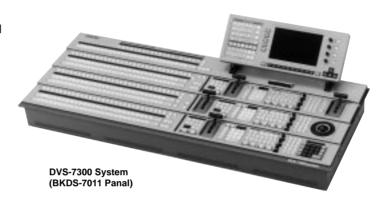
DVS-7000A Digital Video Switcher Processor BKDS-7103 12 Input Serial Digital Board BKDS-7110* Blank Input Adaptor Board BKDS-7111*1 Analog Composite Input Board for NTSC composite signals BKDS-7113*1 Serial Digital Input Board BKDS-7133 CRK (Chromakey) Analog Component Input Board BKDS-7161 Analog Composite Output Board for NTSC composite signals BKDS-7163 Serial Digital Output Board BKDS-7270 Key Border Board BKDS-7271 Fine Key/Key Border Board BKDS-7280 ME PVW Board BKDS-7420*2 Color Correction Board BKDS-7444 FM (Frame Memory) Expansion Board (requires BKDS-2041) BKDS-7445 FM (Frame Memory) Adaptor Board BKDS-7690 Redundant Power Supply Unit (for processor)

BKDS-2031 Chromakey Board

BKDS-2032 Chromakey Upgrade Board (requires BKDS-2031) BKDS-2041 Frame Memory Board (requires BKDS-7445 or

BKDS-2070 Enhanced Wipe Generator Board BKDS-7370 Advanced Wipe Generator Board







CONTROL PANEL

Type-3D Switcher Control Panel (for DVS-7300 System) BKDS-7011 BKDS-7012 Type-3D*3 Switcher Control Panel (for DVS-7300

BKDS-7021 Type-4D Switcher Control Panel (for DVS-7350 System)

BKDS-7022 Type-4D*3 Switcher Control Panel (for DVS-7350

BKDS-7023 Type-4D Switcher Control Panel (for DVS-7350 System)

BKDS-7001 Control Port Expansion Board BKDS-7030 Key Frame Control Panel Unit

BKDS-7031 DME Control Panel Unit (for DME-7000/3000) BKDS-7032 DSK Control Panel Unit (for BKDS-7011/7012)

BKDS-7033 Memory Recall Control Panel Unit Control Panel Remote Adaptor

Redundant Power Supply Unit (for control panels) BKDS-7090

PERIPHERALS

BKDS-2010 M/E Remote Control Panel BKDS-7060 Keyer Remote Control Panel BKDS-7080 AUX Bus Remote Panel AUX Bus Remote Panel New BKDS-7081 BKDS-7700 Tally Interface Unit

BKDS-6080 **SOFTWARE**

Operation Software with Manual (English) BZS-7020A* BZS-7021A*5 Operation Software with Manual (English) New Operation Software with Manual (for BKDS-2010) BZS-7220 Operation Software with Manual (for BKDS-7060) BZS-7360 BZS-7720 Operation Software with Manual (for BKDS-7700) BZDM-7720 Operation Software with Manual (for DME-7000) BZDM-3720 Operation Software with Manual (for DME-3000)

Tally Interface Unit

*2 D-1 mode only.

Specifications

AC 100 to 240 V ±10%, 50/60 Hz Power requirements:

Power consumption:

DVS-7000: 7 to 3 5 A BKDS-7011/7012/7021/7022/7023: 1.0 A max

Dimensions:

Processor: 424(W) × 443(H) × 450(D) mm (16 3/4 × 17 1/2 × 17 3/4 inches)

Control Panel

1290(W) × 142(H) × 532(D) mm Main Panel: (50 1/8 × 5 1/8 × 21 inches) AUX Bus Panel*: $680(W) \times 90(H) \times 132(D)$ mm

 $(26 \% \times 3 \% \times 5 \% \text{ inches})$

EL Display Panel: $499(W) \times 45(H) \times 197(D)$ mm $(19\ ^34 \times 1\ ^34 \times 7\ ^7\%$ inches)

Mass:

Processor: 56kg (123 lb 7 oz) BKDS-7011/7012: 36kg (79 lb 5 oz) BKDS-7021/7022/7023: 40kg (88 lb 2 oz)

^{*1} The BKDS-7111/7113 are daughter boards of the BKDS-7110. Customized input configurations are available with combinations of these boards

^{*3} The BKDS-7012 and BKDS-7022 are available in the North American market.

*4 Operation software must be installed to initiate DVS-7300/7350 System/DMK-7000 operation.

^{*5} BZS-7021A extends primary inputs to 60, and auxiliary buses to 28 when DVS-V6464B or DVS-V6464M is connected

^{*} Only for BKDS-7021/7022/7023 series panels

DVS-7250/7200 System (NTSC, 525/60, 625/50)

Digital Video Switcher

- •Two alternative versions a 2 M/E type and a 2 M/E plus PGM/PST type •Three alternative switcher panel designs to meet particular applications •Component 525/625 and composite NTSC 525 switchable •Primary inputs extendable up to 36 by using optional boards:
- -Composite type: serial composite digital and/or NTSC input
- -Component type: serial component digital input boards •Two independent key processors with priority control and a color background generator for each M/E •14 auxiliary buses •Source name display at the M/E banks and AUX bus (option for 2 M/E system) •FlexiPad™ for simple operator recall of wipe/DME-LINK™ patterns and snapshots (for 2.5 M/E system) •Four convenient remote panels - the BKDS-7060 keyer remote control panel, the BKDS-2010 sub control panel, and the BKDS-7080/7081 AUX bus remote panels •Add-in panel units for keyframe control, DME control, DSK control (for 2 M/E system) and memory recall control (option) •High quality chromakeyer (option) - 4:4:4:4 video/key processing, shadow control, spot color modify, etc. •Powerful switcher memory system, including Keyframe Effect memory (option), Key snapshot and Snapshot memory • Processed key function •Two frame memories (option) •BVE-9100 Editing System serial control •Video processing for primary inputs •Intelligent tally system for live operation (with BKDS-7700) •Remote control of Sony DVS-B Series routing switchers (with BKDS-7700) •Compact processor and low power consumption •Redundant power supplies for processor and control panel (options)



Rack mounting angles (1 set) Processor:

75 Ω terminator (1) 9-pin adaptor (1) Operation manual (1) Installation manual (1) Maintenance manual part 1 (1) Key top removing tool (1)

Control Panel: Switch chips (11)

Installation and Maintenance Guide (1)

System Configurations

PROCESSOR

DVS-7200A Switcher Processor BKDS-7103 12 Input Serial Digital Board BKDS-7110*1 Blank Input Adaptor Board

BKDS-7111*1 Analog Composite Input Board for NTSC composite

BKDS-7113*1 Serial Digital Input Board

BKDS-7133 CRK (Chromakey) Analog Component Input Board BKDS-7161

Analog Composite Output Board for NTSC composite

Serial Digital Output Board BKDS-7163

PP/DSK Board (for DVS-7250 System) BKDS-7250*2 BKDS-7270 Key Border Board

BKDS-7271 Fine Key/Key Border Board

BKDS-7280 ME PVW Board BKDS-7420*3 Color Correction Board

BKDS-7340 DSK Board/Control Panel Unit (for DVS-7200 System)

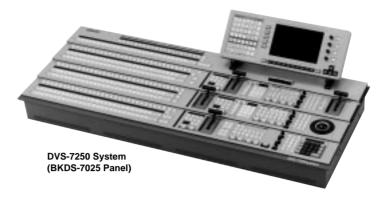
BKDS-7444 FM (Frame Memory) Expansion Board BKDS-7445 FM (Frame Memory) Adaptor Board

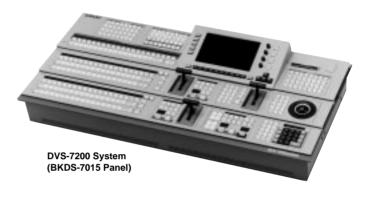
Redundant Power Supply Unit (for processor) BKDS-7690

Chromakey Board BKDS-2031

Chromakey Upgrade Board (requires BKDS-2031) BKDS-2032 BKDS-2041 Frame Memory Board (requires BKDS-7445)

BKDS-2070 **Enhanced Wipe Generator Board** BKDS-7370 Advanced Wipe Generator Board







CONTROL PANELS

Switcher Control Panel (for DVS-7200 System) BKDS-7015 BKDS-7025 Switcher Control Panel (for DVS-7250 System) BKDS-7026*4 Switcher Control Panel (for DVS-7250 System)

BKDS-7001 Control Port Expansion Board

BKDS-7002 Source Name Display Unit (for BKDS-7015)

BKDS-7030 Key Frame Control Panel Unit

BKDS-7031 DME Control Panel Unit (for DME-7000/3000)

BKDS-7033 Memory Recall Control Panel Unit BKDS-7075 Control Panel Remote Adaptor

BKDS-7090 Redundant Power Supply Unit (for BKDS-7025/7026) BKDS-7091 Redundant Power Supply Unit (for BKDS-7015)

PERIPHERALS

BKDS-2010 M/E Remote Control Panel BKDS-7060 Keyer Remote Control Panel BKDS-7080 AUX Bus Remote Panel New BKDS-7081 AUX Bus Remote Panel New

BKDS-7700 Tally Interface Unit BKDS-6080 Tally Interface Unit

SOFTWARE

Operation Software with Manual (English) BZS-7040*5 BZS-7060*6 Operation Software with Manual (English) New Operation Software with Manual (for BKDS-2010) BZS-7220 Operation Software with Manual (for BKDS-7060) BZS-7360 Operation Software with Manual (for BKDS-7700) BZS-7720 BZDM-3720 Operation Software with Manual (for DME-3000) BZDM-7720 Operation Software with Manual (for DME-7000)

Specifications

AC 100 to 240 V ±10%, 50/60 Hz Power requirements: Power consumption: Processor: 7 to 3.5 A

BKDS-7015/7025/7026: 1.0 A max.

Dimensions:

Processor: $424(W) \times 443(H) \times 450(D) \text{ mm}$ $(16^{3/4} \times 17^{1/2} \times 17^{3/4} \text{ inches})$ BKDS-7015: 1030(W) × 200(H) × 496(D) mm

 $(40 \% \times 7 \% \times 19 \% \text{ inches})$

BKDS-7025/7026:

Main Panel: 1290(W) × 142(H) × 532(D) mm (50 ½ × 5 ½ × 21 inches) EL Display Panel: 499(W) × 45(H) × 197(D) mm

(19 3/4 × 1 3/4 × 7 7/8 inches)

Mass:

56 kg (123 lb 7 oz) Processor: BKDS-7015: 30 kg (66 lb 2 oz) BKDS-7025/7026: 36 kg (79 lb 6 oz)

^{*1} The BKDS-7111/7113 are daughter boards of the BKDS-7110. Customized input configurations are available with combinations of these boards.
*2 The DVS-7250 System requires that the BKDS-7250 PP/DSK Board to be installed into

the DVS-7200 Switcher Processor *3 D-1 mode only.

^{*4} The BKDS-7026 panel is available in the North American market.
*5 BZS-7040A operation software must be installed to initiate DVS-7200 System operation. *6 BZS-7060A operation software must be installed to initiate DVS-7250 System operation.

DVS-7150 System (NTSC, 525/60, 625/50)

Digital Video Switcher

- •1 M/E (2 kevers) plus PGM/PST, 2 DSK •Component 525/625 and composite NTSC 525 switchable • Primary inputs extendable up to 24 by using optional boards:
- -Composite type: serial composite digital and/or NTSC input boards
- Component type: serial component digital input boards •Two independent key processors with priority control and a color background generator •Six auxiliary buses and snapshots •Four convenient remote panels - the BKDS-7060 keyer remote control panel, the BKDS-2010 sub control panel, and the BKDS-7080/7081 AUX bus remote panels •Add-in panel units for keyframe control, DME control, and memory recall control (option) •High quality chromakeyer (option) - 4:4:4:4 video/key processing •Powerful switcher memory system, including Keyframe Effect memory (option), Key snapshot and snapshot memory •Processed key function •Enhanced Wipe and Key Border are equiped as standard •BVE-9100 Editing System serial control •Video processing for primary inputs •Intelligent tally system for live operation (with BKDS-7700) •Remote control of Sony DVS-B Series routing switchers (with BKDS-7700) •Compact processor (5U) and low power consumption •Redundant power supplies for processor and control panel (options)

Supplied accessories:

Control Panel:

Processor: Rack mounting angles (1 set)

75 Ω terminator (1) 9-pin adaptor (1) Operation manual (1) Installation manual (1) Maintenance manual part 1 (1) Key top removing tool (1)

Switch chips (11)

Installation and maintenance guide (1)

System Configurations PROCESSOR

DVS-7150 Switcher Processor BKDS-7110*1 Blank Input Adaptor Board

BKDS-7111* Analog Composite Input Board for NTSC composite

signals

BKDS-7113*1 Serial Digital Input Board BKDS-7103 12 Input Serial Digital Board

BKDS-7161 Analog Composite Output Board for NTSC composite

signals

BKDS-7163 Serial Digital Output Board

BKDS-7134 CRK (Chromakey) Analog Component Input Board

BKDS-2031 CRK (Chromakey) board

MF PVW Board **BKDS-7280**

BKDS-M1690 Redundant Power Supply Unit (for processor)

CONTROL PANELS

BKDS-7017 Switcher Control Panel BKDS-7001 Control Port Expansion Board BKDS-7003 Source Name Display BKDS-7030 Key Frame Control Panel Unit BKDS-7031 DME Control Panel Unit (for DME-7000/3000)

BKDS-7033 Memory Recall Control Panel Unit

BKDS-7075 Control Panel Remote Adaptor

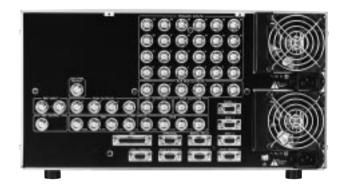
BKDS-7091 Redundant Power Supply Unit (for BKDS-7017)

PERIPHERALS

BKDS-2010 M/E Remote Control Panel Keyer Remote Control Panel BKDS-7060 BKDS-7080 AUX Bus Remote Panel BKDS-7081 **AUX Bus Remote Panel**

BKDS-7700 Tally Interface Unit BKDS-6080 Tally Interface Unit





SOFTWARE

Operation Software with Manual (English) BZS-7080*2 BZS-7220 Operational Software with Manual (for BKDS-2010) Operational Software with Manual (for BKDS-7060) BZS-7360 BZS-7720 Operational Software with Manual (for BKDS-7700) Operation Software with Manual (for DME-7000) BZDM-7720 BZDM-3720 Operation Software with Manual (for DME-3000)

*1 The BKDS-7111/7113 are daughter boards of the BKDS-7110. Customized input configurations are available with combinations of these boards

*2 BZS-7080 operation software must be installed to initiate DVS-7150 System operation.

Specifications

Power requirements: AC 100 to 240 V ±10 %, 50/60 Hz

Power consumption:

Processor (DVS-7150):

7 to 3.5 A Control Panel (BKDS-7017):

1.0 A (max.)

Dimensions:

Processor (DVS-7150):

424 (W) × 221 (H) × 450 (D) mm

 $(16 \frac{3}{4} \times 8 \frac{3}{4} \times 17 \frac{3}{4} \text{ inches})$

Control Panel (BKDS-7017):

850 (W) × 200 (H) × 496 (D) mm (40 % × 7 % × 19 % inches)

Processor (DVS-7150):

22 kg (48 lb 8 oz)

Control Panel (BKDS-7017):

30 kg (66 lb 2 oz)

DMK-7000

Digital Multi Kever

•Stand-alone digital multi-DSK unit •Enables Sony DVS Series digital switchers to support up to four additional downstream keyers •Four operation modes — Cascade, Dual Cascade, Parallel, and Independent •Frame memory for each of the four DSKs (option) •Powerful link operation with DVS-7350/7300 System

Supplied accessories: Rack mounting angles (pre-installed) (1 set)

75 Ω terminator (1) Operation manual (1) Installation manual (1) Maintenance manual part 1 (1)

System Configurations PROCESSOR

DMK-7000 Digital Multi Keyer Processor

BKDS-7300 Linear Keyer Board

Analog Composite Input Board for NTSC composite BKDS-7111

signals

BKDS-7113 Serial Digital Input Board

Analog Composite Output Board for NTSC BKDS-7161

composite signals Serial Digital Output Board BKDS-7163 BKDS-7180 DME Interface Board Luminance Keyer/Border Board BKDS-7320 BKDS-7430 Color Vector Keyer Board BKDS-7443 Frame Memory Board BKDS-7691 Redundant Power Supply Unit

CONTROL PANEL

BKDS-7060 Keyer Remote Control Panel

SOFTWARE

BZS-7320*1 Operation Software with Manual for Stand-alone

DMK System (English)

BZS-7360*1 Operation Software with Manual for BKDS-7060

Keyer Remote Panel (English)

Specifications

Power requirements: AC 100 to 240 V ±10%, 50/60 Hz

Power consumption: 3.5 to 2.0 A max.

Dimensions: 424(W) × 221(H) × 475(D) mm

(16 3/4 × 8 3/4 × 18 3/4 inches)

Mass: 32 kg (70 lb 9 oz)





^{*1} Operation software must be installed to initiate DMK-7000 stand-alone operation.

DVS-2000C (525/60, 625/50)

Digital Video Switcher

•1M/E plus DSK configuration •Primary inputs extendable up to 16 by using the 6-channel module •Mixed operation with digital and analog component signals •Two effect kevers and DSK (option) •Powerful key modifier option (Drop Shadow. Drop Border, Outline, Border) •Dynamic priority change control between the two Effect Keyers •FlexiPad™ for simple operator recall of wipe/DME-LINK™ patterns and snapshots •Four auxiliary outputs and processed key function (option) •Depth key processing (option) •High quality Chromakey -4:4:4 video/key processing (option) •Advanced RGB color corrector (option) •Sophisticated GUI to provide convenient timeline operation (option) •Two frame memories (option) •BVE-9100/2000 Editing System interface

Supplied Accessories: Rack mounting angles (1 set)

Plug retainer (1) 75 Ω terminator (1) Installation manual (1) Maintenance manual part 1 (1)

System Configurations

PROCESSOR DVS-2000C

Digital Video Switcher Processor BKDS-2020A 6-Channel Serial Digital Input Board 2-Channel Serial Digital Input Board BKDS-2021A BKDS-2022 Analog Component Input Board

BKDS-2031 Chromakey Board

Chromakey Upgrade Board (requires BKDS-2031) BKDS-2032

BKDS-2041 Frame Memory Board

BKDS-2050 DSK with Border/Finekey™ Board Assignable Output Board BKDS-2060

BKDS-2061 AUX Bus/Processed Key Output Board

BKDS-2062 NTSC Black Burst Generator Board

BKDS-2070 Enhanced Wipe Board BKDS-2071 M/E Key Border/Finekey Board

BKDS-2072*1 CPU Upgrade Board

BKDS-2400 RGB Color Correction Board

BKDS-2530 RS-422A Serial Interface Board (for PC)

CONTROL PANEL

Switcher Control Panel BKDS-2010

PERIPHERALS

BZS-2090A Memory Pack

SOFTWARE BZS-2020*2

Operation Software with Manual (English) BZS-2050 Operation Software with Manual (for GUI option)

*1 The BKDS-2072 board is required when connecting the switcher to a PC for GUI

operation and when a BKDS-2400 is installed.
*2 Operation software must be installed to initiate DVS-2000C operation.

Specifications

AC 100 to 240 V ±10%, 50/60 Hz wer requirements:

Power consumption:

Processor BKDS-2010:

Max. 3.5 A/2 A (100 to 120 V/200 to 240 V) 0.4A

Dimensions: Processor:

424(W) × 221(H) × 450(D) mm (16 3/4 × 8 3/4 × 17 3/4 inches) BKDS-2010:

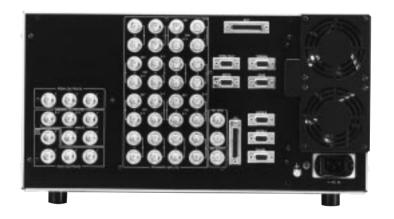
424(W) × 120(H) × 400(D) mm (16 3/4 × 4 3/4 × 15 3/4 inches)

Processor: 25 kg (55 lb 2 oz)

(with all optional boards installed)

BKDS-2010: 10 kg (22 lb 1 oz)





DVS-M1000C (525/60, 625/50)

Digital Master Switcher

•Suitable for Digital Multi-Channel Broadcasting •19-inch rack mountable control panel and processor •ON AIR/NEXT buses + 4 DSKs + 2 Audio Mixers configuration •Monitor bus to confirm input signals •Up to 12 primary inputs in serial digital component format •4 channels of audio embedded in each primary video resulting in simple wiring •Video and audio break away function •Mix, wipe and border (option) for DSKs •Frame memories (option) •Unique key after function •Audio mixers for Audio Over and Audio Under •Early under function •8-channel embedded audio for multisound operation (option) •Two large, motorized audio faders (option) •Graphic User Interface (GUI) option for status display and set-up change •Seven mode preset trigger buttons to control down stream equipments •525/625 switchable •Redundant power supply unit

Rack mounting angles (1 set) Supplied accessories

75Ω terminator (1) Operation manual (1) Installation manual (1) Maintenance manual part 1 (1)

System Configurations

Digital Master Switcher DVS-M1000C BKDS-M1010 Master Switcher Control Panel

BKDS-M1040 Audio Faders

BKDS-M1090 Redundant Power Supply Unit for control panel

BKDS-7102 12 Input Serial Digital Board BKDS-7162 Serial Digital Output Board BKDS-7270 Key Border Board BKDS-M1310 Keyer Expansion Boards BKDS-M1441 Frame Memory Board BKDS-M1442 Frame Memory Expansion Board

BKDS-M1810 Audio Processing Boards BKDS-M1820 Audio Channel Expansion Boards

BKDS-M1690 Redundant Power Supply Unit for switcher main

BZS-M1020 Operation Software with Manual (English) BZS-M1120 GUI Operation Software with Manual (English)

Specifications

Power requirements: AC 100 to 240V \pm 10%, 50/60Hz Power consumption:

Processor:

Control Panel: Max. 1A

Dimensions:

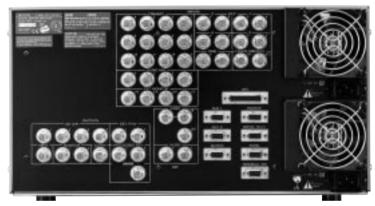
Processor: $424(W) \times 220(H) \times 450(D) \text{ mm}$ (16 ³/₄ × 8 ³/₄ × 17 ³/₄ inches) 484(W) × 130(H) × 354(D) mm Control Panel:

(19 1/8 × 5 1/8 × 14 inches)

Mass:

Approx. 31kg (68 lb 5 oz) Processor: Approx. 13kg (28 lb 11 oz) Control Panel:





HDS-7000 (HD Digital Video Switcher)

•Extremely high quality digital video signal processing with sampling rate of 74.25 MHz/10 bits for HDVS (High Definition Video System). •Uses HD SDI for all video inputs and outputs, which conformed to SMPTE 292M through a single coaxial cable for wiring convenience and reliable transmission. •Specially designed for both live and post production editing operation with a compact yet comprehensive control panel including a large EL display. •Four alternative versions of control panel: 3 M/E and 2 M/E + PGM/PST types. •Integrated with a three mix effects systems, 30 HD SDI (High Definition Serial Digital Interface) primary inputs and 10 auxiliary buses. •Two powerful key processors and a color background generator are standard on each M/E, and a high quality chroma kever is also available in option for each mix effects. •Various mix and wipe effects such as NAM. Super Mix. Circle. Star. Matrix. Diamond Dust etc. •The DME-LINK™ function enables the keyframe effects of the HDME-7000 to be run by the fader bar or transition button of each M/E, just like a wipe transition. The preset effects of a HDME-7000 can also be controlled from the switcher panel. •The Processed Key function links the switcher keyer to an external HDME with the press of a button, allowing simple composition of key and special effects. •Accepts various formats/operation modes -1080/30PsF, 1080/24PsF, 1080/25PsF, Interlaced 1080/50Hz, 60Hz, 59.9Hz, or 1035i. •16:9 or 4:3 mode operation switchable •Incorporated with frame memory function to enhance editing efficiency. (option) •Extremely high picture quality chroma key with auto chroma key function. (option) •Redundant power supply system is available by using another HKDS-7690 power supply unit. (option)

System Configurations

PROCESSOR

HDS-7000 HD Digital Video Switcher
HKDS-7031 Chromakey Board (1 channel)
HKDS-7041 Frame Memory Board
HKDS-7690 Power Supply Unit

CONTROL PANEL BKDS-7011 3 M/E Switcher Control Panel (Source Name Display on Each M/E, FlexiPad In-line Type) BKDS-7012 3 M/E Switcher Control Panel (Double Key Rows on M/Es, FlexiPad Offset Type) BKDS-7025 2.5 M/E Switcher Control Panel (Source Name Display on Each M/E, FlexiPad In-line Type) BKDS-7026 2.5(e) M/E Switcher Control Panel (Double Key Rows on M/Es, FlexiPad Offset Type) BKDS-7001 Control Port Expansion Board BKDS-7030 Key Frame Control Panel Unit BKDS-7031 **DME Control Panel Unit** BKDS-7033 Memory Recall Control Panel Unit BKDS-7075 Control Panel Remote Adaptor BKDS-7090 Redundant Power Supply Unit

(for BKDS-7011/7012/7025/7026)

SOFTWARE

HZS-7020 Operation Software with Manual (English)

Digital HDVS



Specifications

ပ္	Signal standard	HD SDI conforming to SMPTE 292M
VIDEO INPUTS/OUTPUTS	Primary inputs	HD SDI × 30
5	Program outputs	HD SDI × 3
Q	M/E program outputs	HD SDI x 2 per M/E 1 and M/E 2
57	M/E preview output	
호	Preview output	HD SDI × 1
=	Clean output	HD SDI x 1
Ä	Auxiliary bus outputs	HD SDI x 10 (including Edit Preview)
=	External reference input	HD TRI-level Sync, loop-through
STO	Control panel 1, 2	D-sub 9-pin, RS-422A
CONTROL INPUTS/OUTPUTS	Editor A, B	D-sub 9-pin, RS-422A
UTS	DME 1, 2	D-sub 9-pin, RS-422A
\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	GPI	D-sub 25-pin, 8-inputs, 8 outputs, programmable
	Serial tally	D-sub 9-pin, RS-422A
8	Terminal	D-sub 9-pin, RS-232C
	Power Requirement	DC 5 V, 3.3V, 12V, -5V
I≅	Dimensions:	424 × 620 × 492 mm
岁	(W x H x D)	(16 ¾ × 24 ½ × 19 ¾ inches)
GENERAL		excluding protruding parts
	Mass (Approx.)	70 kg (154 lb 5 oz)

HKDS-7690 (Power Supply Unit)

Power requirements: AC 100 to 120 V, 50/60 Hz

Current consumption: 30 A (Max.)

Dimensions: $424 \text{ (W)} \times 132 \text{ (H)} \times 542 \text{ (D)} \text{ mm} \\ (16 \ensuremath{\,^3\!\!/}4 \times 5 \ensuremath{\,^1\!\!/}4 \times 21 \ensuremath{\,^3\!\!/}8 \text{ inches)}$ Mass: Approx. 20 kg (44 lb 1 oz)

HDS-7150/7100

HD Digital Video Switcher

•The HDS-7150 is a High Definition Digital Video Switcher with one M/E plus PGM/PST, while the HDS-7100 with one M/E •Extremely high quality digital video signal processing with sampling rate of 74.25 MHz/10 bits for HDVS (High Definition Video System) •Uses HD SDI for all video inputs and outputs, which conformed to SMPTE 292M through a single coaxial cable for wiring convenience and reliable transmission •HDS-7150 provides six auxiliary buses with access to 15 HD SDI inputs, while HDS-7100 provides two auxiliary buses and 10 HD SDI inputs. •Two powerful key processors and one DSK function for HDS-7150 and one for HDS-7100 are standard on each M/E. •One DSK for HDS-7150 •Two color background generators for HDS-7150 and one for HDS-7100 are provided as standard features •Various mix and wipe effects such as NAM, Super Mix, Circle, Star. Matrix, Diamond Dust, etc. •Up to 99 Snapshots of the switcher's entire panel set-up can be recalled. •99 effects memory of HDME time line sequences are provided (HDS-7150 is also equipped with a time line sequence memory function of the switcher) •Time line sequences for switcher (HDS-7150 only) •Accepts various formats-1080/30PsF, 1080/24PsF, 1080/25PsF, Interlaced 1080/50Hz, 60Hz, 59.9Hz, or 1035i. •16:9 or 4:3 mode operation switchable •Familiar operating style control panels •High definition quality chroma key by HKDS-7031 •RGB color corrector by HKDS-7051 •Powerful plug-in DME by an HKDS-7061/7071 •A redundant power supply system for HDS-7150 is available by using two HKDS-7695 power supply units (option).

System Configuration PROCESSOR

HDS-7150: **Production Switcher Chassis** HDS-7100: **Production Switcher Chassis** HKDS-7031: Chromakev Board HKDS-7051: Color Correction Board

Video Modifier Board Digital Multi Effects Board (requires HKDS-7061) HKDS-7071

HKDS-7695: Power Supply Unit

CONTROL PANEL

BKDS-7017: Switcher Control Panel (for HDS-7150 System) BKDS-2010: Switcher Control Panel (for HDS-7100 System) Key Frame Control Panel Unit (for HDS-7150) BKDS-7030:

System)

DME Control Panel Unit (for HDS-7150 System) BKDS-7031:

BKDS-7033: Memory Recall Control Panel Unit (for HDS-7150 System)

BKDS-7075 Control Panel Remote Adapter (for BKDS-7030/7031/7033) BKDS-7003: Source Name Display

BKDM-3010: **DME Control Panel** CPD series: Color Display Monitor

HZS-7040: Operation Software (for HDS-7150) HZS-7060: Operation Software (for HDS-7100)

HKDS-7695 (Power Supply Unit)

AC 100 to 120 V, 50/60 Hz Power requirements:

30 A (Max.) Current consumption:

424 (W) × 132 (H) × 542 (D) mm **Dimensions** (16 3/4 × 5 1/4 × 21 3/8 inches) Approx. 20 kg (44 lb 1 oz) Mass:

BKDS-7017 (Switcher Control Panel for HDS-7150 system)

Dimensions: 850 (W) × 200 (H) × 496(D) mm (40 % × 7 % × 19 % inches)

Approx. 30 kg (66 lb 2 oz) Mass:

BKDS-2010 (Switcher Control Panel for HDS-7100 system)

Dimensions: 424 (W) × 120 (H) × 400 (D) mm (16 ¾ × 4 ¾ × 15 ¾ inches)

Approx. 10 kg (22 lb 1 oz) Mass:

Specifications

HKDS-7061

- 1	omounons		
		HDS-7150	HDS-7100
' 0	Signal standard	HD SDI conforming to SMPTE 292M	HD SDI conforming to SMPTE 292M
5	Primary inputs	HD SDI × 15	HD SDI × 10
F	Program outputs	HD SD	0l × 3
9	M/E program outputs	HD SDI × 2	
lS/	M/E preview output	HD SDI x 1	
INPUTS/OUTPUTS	Preview output	HD SD	0l × 1
	Clean output	HD SD	0l × 1
VIDEO	Auxiliary bus outputs	HD SDI \times 6 (\times 2) (including Edit Preview)	HD SDI \times 2 (\times 2) (including Edit Preview)
₽	Analog reference input	SD Black	k Burst
	Analog reference output	HD Tri-lev	vel Sync
TS	Switcher panel 1,2	D-sub 9-pin	, RS-422A
CONTROL INPUTS/OUTPUTS	Switcher DME panel	D-sub 9-pin	, RS-422A
5	DME panel	D-sub 9-pin or 25	5-pin, RS-422A
S/O	Editor (Switcher)	(× 2) D-sub 9-pin, RS-422A	(× 1) D-sub 9-pin, RS-422A
5	Editor (DME)	D-sub 9-pin	
Ā	EXT DME	(× 2) D-sub 9-pin, RS-422A	(× 1) D-sub 9-pin, RS-422A
7	GPI (Switcher)	D-sub 25-pin, 8 inputs, 8	outputs, programmable
75	GPI (DME)	D-sub 25-pin, 7 inputs, 7 outputs, programmable	D-sub 9-pin, 7 inputs, 7 outputs, programmable
Σ	Serial tally	D-sub 9-pin	, RS-232C
ည	Terminal	D-sub 9-pin	, RS-232C
4	Power Requirement	DC 5 V, 3.3\	/, 12V, -5V
꼺	Dimensions	424 × 620 ×	< 492 mm
GENERAL	(W x H x D)	$(16^{3/4} \times 24^{1/2} \times 19^{3/6} \text{ inches})$	excluding protruding parts
5	Mass (Approx.)	70 kg (154	l lb 5 oz)

13

Digital Multi Effects

DME-7000	196
DME-3000	197
HDME-7000	198

13 Digital Multi Effects

DME-7000 (525/60, 625/50)

Digital Multi Effects

•3D shadow effects to add even more realism to the powerful lighting tools •Digital SKETCH™ effects to give the video a sketch touch •Brick effects for a cube or slab in a single channel •Duality™ mode multiplies the power of a single channel •Creative ChromAlloy™ option to provide RGB Color Correction and Metallic effect •Digital SPARKLE™ effects to provide spectacular non-linear effects •Source spot lighting and target spot lighting capability •Incredibly clean effects using two state-of-the-art technologies - 8x8 Multi-Point Interpolation and 33x33 Pixel-Based Anti-Alias Filter •Powerful linked operation with Sony DVS switchers such as DME-LINK™, User DME, Keyframe-LINK™ and Snapshot recall •Sony BVE Editing System interface •Both analog and digital signals are accepted •Simple system switching composite (NTSC), component (525/625) and 4:3/16:9 Consistent operation style with DME-3000 •DME-3000 keyframe effect data can be loaded

Supplied accessories: Rack mounting angles (1 set)

D-sub 25-pin cable, 10m (1) 750 terminator (1) Operation manual (1) Maintenance manual part 1 (1)

System Configurations

DME-7000 Digital Multi Effects BKDM-3010 DMF Control Panel BKDM-7020 Digital Input/Output Board

BKDM-3022 Digital/Analog Composite Input/Output Board

(525/60 only)

Digital/Analog Component Input/Output Board BKDM-3023

BKDM-3030 Non-linear Effects Board

Digital Color Effects Board (requires BKDM-7020) BKDM-7021* BKDM-7031*2

Digital SPARKLE Effects Board (requires BKDM-3030)

BKDM-3040 Wipe and Graphics Board BKDM-7041*3 Digital SKETCH Effects Board (requires BKDM-3040) BKDM-3050 Combiner and Lighting Board

BKDM-7060 Key Channel and Recursive Effects Board BKDM-7070 Advanced Shadow™ Effects Board BZDM-7020*4 Operation Software with Manual (English)

CPD-series Color Display Monitor

- *1 The BKDM-7021 is a daughter board of the BKDM-7020.
- *2 The BKDM-7031 is a daughter board of the BKDM-3030
- *3 The BKDM-7041 is a daughter board of the BKDM-3040.
 *4 BZDM-7020 operation software must be installed to initiate DME-7000 operation

Specifications

Power requirements: AC 90V to 264V, 50/60Hz

Power consumption:

(including all optional boards and control panel) Dimensions: Processor: 424(W) × 221(H) × 450(D) mm

(16 ³/₄ × 8 ³/₄ × 17 ³/₄ inches)

Control Panel: 424(W) × 84(H) × 285(D) mm

(16 3/4 × 3 3/8 × 11 1/4 inches)

Mass Processor: Approx. 27 kg (59 lb 8 oz)

(with all optional boards installed)

Control Panel: Approx. 3.5 kg (7 lb 11 oz)





13 Digital Multi Effects

DME-3000 (525/60, 625/50)

Digital Multi Effects

•Attractive 2D. 3D non-linear effects such as slide, rotation. page-turn and sphere •Digital SKETCH™ effects to give the video a sketch appearance •Digital SPARKLE™ effects to provide spectacular non-linear effects •Comprehensive GUI for easy operation •Z-Ring™ along with trackball offers intuitive and efficient operation •Adaptive frame-field based processing and interpolation •High performance anti-aliasing filtering •Two channel operation capability •Both analog and digital signals are accepted •Simple system switching -Composite (NTSC)/Component (525/625) and 4:3/16:9 •Optional key-channel input/output •Keyframe operation •DVS series switcher linked operation such as DME-LINK™ and Keyframe-LINK™ •BVE-2000/9100 Editing System interface •Built-in floppy disk drive for the storage of set-up data

Supplied accessories: Rack mounting angles (1 set)

Plug adaptor (1) 75 Ω terminator (1) D-sub 25-pin cable, 10m (1) AC power cord (1) Operation manual (1) Maintenance manual part 1 (1)

System Configurations

DME-3000 Digital Multi Effects BKDM-3010 **DME Control Panel** BKDM-7020 Digital Input/Output Board

BKDM-3022 Digital/Analog Composite Input/Output Board

(525/60 only)

BKDM-3023 Digital/Analog Component Input/Output Board

BKDM-3030 Non-linear Effects Board BKDM-3040 Wipe and Graphics Board BKDM-3050 Combiner and Lighting Board

BKDM-3060 Key Channel and Recursive Effects Board BKDM-7031*1 Digital SPARKLE Effects Board

(requires BKDM-3030) BKDM-7041*2

Digital SKETCH Effects Board (requires BKDM-3040)

BZDM-3020*3 Operation Software with Manual (English)

CPD-series Color Display Monitor

- *1 The BKDM-7031 is a daughter board of the BKDM-3030. *2 The BKDM-7041 is a daughter board of the BKDM-3040
- *3 BZDM-3020 must be installed to initiate DME-3000 operation.

Specifications

Mass:

AC 90 V to 264 V, 50/60 Hz Power requirements:

Power consumption: 400 VA max.

(including all optional boards and control panel) Dimensions: 424(W) × 221(H) × 450(D) mm

(16 3/4 × 8 3/4 × 17 3/4 inches)

Control Panel: 424(W) x 84(H) x 285(D) mm

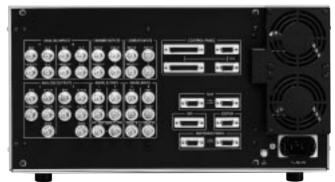
(16 3/4 × 3 3/8 × 11 1/4 inches)

Approx. 25 kg (55 lb 2 oz) Processor:

(with all optional boards installed)

Control Panel: Approx. 3.5 kg (7 lb 11 oz)





13 Digital Multi Effects

HDME-7000

HD Digital Multi Effects

•Extremely high quality digital video signal processing with sampling rate of 74.25 MHz/10 bits for HDVS (High Definition Video System) •Advanced man-machine interface by employing Track Ball, Z-Ring, and familiar Color GUI derived from Sony DME Series for easy and guick operation •Powerful Linked Operation with the HDS-7000 HD Digital Video Switcher and BVE-9100 Editing System offers superior system performance in both live and production applications. Particularly the DME-LINK™ function enables the effects of the HDME-7000 to be used for scene transitions in the same manner as switcher wipe transitions and to be controlled from the switcher fader lever or auto transition button •Achieves downsizing and saves power consumption — a compact twochannel-DME in a single electronic chassis design reduces space and power consumption, and simplifies installation •Utilizes HD SDI for all video inputs and outputs, which conformed to SMPTE 292M through a single coaxial cable for wiring convenience and high quality transmission

Main Effects

3D Transform: 3D Location and Rotation, Axis Location,

Compression/ Expansion, Perspective/ Skew/ Aspect,

Flip/Tumble.

Background & Edge: Color Background, Border, Crop, Drop Shadow (2D

linear)

Freeze & Recursive: Input Freeze, Motion Decay, Trail, Wind, Multi Freeze

Picture Modify: Multi Move, Defocus, Blur

Video Modify: Posterization/ Solarization, Sepia, Mono, Nega,

Contrast, Mosaic

Non-Linear Effects Lighting Effects Graphics

System Configurations

HDME-7000 HD Digital Muliti Effects HKDM-7690 Power Supply Unit

HKDM-7020 Second Channel DME Boards HKDM-7030 Wipe/Graphics Effects Board

HZDM-7020 Operation Software with Manual (English)

BKDM-3010 DME Control Panel CPD-100GS Color Display Monitor

Specifications

Power Requirement: 5 V ±0.2 V DC, 3.3 V ±0.2 V DC, 12 V ±0.2 V DC,

-5 V ±0.2 V DC

Current Consumption: 5 V DC: Max. 220 A -5 V DC: Max. 5 A

12 V DC: Max. 12 A 3.3 V DC: Max. 65 A Processor (HDME-7000):

Dimensions: Processor (HDME-7000): $424 \text{ (W)} \times 620 \text{ (H)} \times 492 \text{ (D)} \text{ mm}$

(16¾ × 24½ × 19¾ inches) Power Supply Unit (HKDM-7690): 424 (W) × 132 (H) × 542 (D) mm (16¾ × 5¼ × 21¾ inches)

Mass (Approx.): Processor (HDME-7000): 70 kg (154 lb 5 oz)

Power Supply Unit (HKDM-7690): 20 kg (44 lb 1 oz)







DVD AUTHORING SYSTEM

DVD Authoring System

DVA-1100 System	200
DVA-V1100	202
DVA-M1100A	202
DVA-MC1100	202
DVA-P1100	203
DVA-A1100	203
D\/A-R1100	203

14 DVD Authoring System

New

DVA-1100 System

DVD Authoring System

- Complete system to implement entire authoring processes from video/audio encoding to streaming of a cutting master tape
- •High quality video encoding using original MPEG video chip set and multiplexing algorithm
- Up to 9.8 Mbps (maximum bit rate allowed for DVD) quaranteed
- Auto calculation of bit rate to full utilize maximum disc capacity
- Two-pass variable bit rate encoding
- Fine tuning by customization function
- •Full support of DVD specification •Flexible configuration; single or networked multiple PC system •Windows NT-based operation •User-friendly menu authoring by "drag & drop" operation on GUI •Simple authoring process using the "SUPERVISOR" function •Over 20 extensional function provided in the optional add-on software •Emulator unit DVA-M1100A to enable all information and functionality to be checked before stamping the final disc



Video Encoding

MPEG2 MP@ML

Variable bit rate (2 PASS) Constant bit rate (1 PASS) Up to 99 titles with 99 chapters

525/625 standards supported 720 x 480 (525), 720 x 576 (625) 4:3, 16:9, Letter box picture formats

Encode customization

Automatic scene change detection

Monitor out

Closed caption support (Line 21 data)

Multi-reel encoding (allows re-encoding on a per-reel basis)

Specify any video frame as chapter start/stop point

Reverse 3:2 pull down encoding

Preview and review function

SDI/analog (composite/component) inputs

Built-in filter (low pass)

Multi-angle encoding (up to 9 angles)

Encoding for menu backgrounds

VTR remote control

Audio Encoding

AC-3 Audio (2 ch/5.1 ch) MPEG Audio (2 ch/5.1 ch/7.1 ch) LPCM 16 bits at 48 kHz

Multi-Reel Encoding **AES/EBU Inputs**

8 Audio Streams supported

Subtitle Encoding

32 subtitle streams supported

Input Sources: TIFF files, character generator, "Super" Reel

Video input for character generator, "Super" Reel

Background video input (Real-time Superimpose, Monitoring are available)

Color editor

Automatic formatting of subtitles for Letter Box display

Menu Authoring

Fully supports all DVD system menus (99 pages per each menu with option) Catalog menu (over 100 pages with option)

Supports normal video as a menu background and Superimpose

Supports TIFF files as a sub picture source

Provides library facility to store user-definable menu templates

Still/Movie menu (16:9, 4:3)

Other Functions

Trailer capability Dual layer capability

Plug-in option over 20 for various navigation type



Other Specifications

DVA-V1100 / DVD Video Encoder Unit

General

Power requirement: AC 100V to 240V, 50/60 Hz

Current consumption: 2 to 1 A

482 (W) x 475 (D) x 147 (H) mm Dimensions (approx.): (19 x 18 3/4 x 5 7/8 inches)

Mass (approx.): 14.5 kg (33 lb 1 oz)

DVA-P1100 / DVD SubPicture Encoder / Decoder Boards

SDI

<Encoder Board>

Inputs/outputs Video in:

Time Code in/out: SMPTE/EBU

General

ISA Specification

Power consumption: 5 W

Dimensions (approx.): 142 (W) x 352 (D) x 23 (H) mm

(5 5/8 x 13 7/8 x 29/32 inches)

0.25 kg (8.8 oz) Mass (approx.):

<Decoder Board> Inputs/outputs

Video in/out: SDI

General

ISA Specification

3.5 W Power consumption:

Dimensions (approx.): 142 (W) x 352 (D) x 23 (H) (5 5/8 x 13 7/8 x 29/32 inches)

Mass (approx.): 0.3 kg (10.6 oz)

DVA-M1100A / DVD Emulator Unit

Inputs/outputs

Audio: Analog/Digital Output

Video Output: Composite/Component/S-Video

General

AC 100V/120V/220-240V, 50/60 Hz Power requirement:

Power consumption: Less than 28 W

430 (W) x 395 (D) x 111 (H) mm Dimensions (approx.):

(17 x 15 5/8 x 4 3/8 inches)

Mass (approx.): 7.0 kg (15 lb 7 oz)

DVA-MC1100 / DVD Emulator Control Unit

Inputs/outputs

SCSI: 50-pin high-density

General

AC 100 V to 240 V, 50/60 Hz Power requirement:

Less than 5 W Power consumption:

424 (W) x 308 (D) x 52 (H) mm Dimensions (approx.):

(16 3/4 x 12 1/3 x 2 1/8 inches)

3.5 kg (7 lb 11 oz) Mass (approx.):

14 DVD Authoring System

DVA-A1100 / DVD Audio Encoder Interface Board

LPCM Audio: Sampling frequency: 48 kHz 16, 20, 24 bit Bit length:

Digital Audio: AES/EBU (XLR x 2) Out: AES/ EBU (XLR x 2)

Timecode: In/Out (XLR) **Board Connector:** 25-pin

General

PCI Specification

Dimensions (approx.): 126 (W) x 330 (D) x 20 (H) mm

(5 x 13 x 13/16 inches)

Mass (approx.): 0.2 kg (7.1 oz)

DVA-R1100 / DVD Authoring 9-Pin Interface Board

Inputs/outputs

Remote: RS-422 (9-pin remote cable attached)

General

PCI Specification

Power requirement: ±5 V 0.2 A (typical) Power consumption:

125 (W) x 190 (D) x 20 (H) mm Dimensions (approx.):

(5 x 7 1/2 x 13/16 inches)

Mass (approx.): 0.12 kg (4.2 oz)

Minimum Requirements for PC

Pentium II 350MHz or greater CPU:

Memory: 64~128 MB HDD: 4~8 GB

OS: Windows NT Workstation Ver. 4.0 (Service Pack 3)

ISA Bus Slot (Vacant): PCI Bus Slot (Vacant): 1~3

System Configuration

<Hardware>

DVA-V1100: DVD Video Encoder Unit

DVA-A1100: DVD Audio Encoder Interface Board DVA-P1100: DVD SubPicture Encoder/Decoder Board DVA-R1100: DVD Authoring 9-pin Interface Board

DVA-M1100A: DVD Emulator Unit DVA-MC1100: **DVD Emulator Control Unit**

<Software>

DZA-S1100N:

DZA-1100: **DVD** Authoring Basic Software DVD Authoring Software Add-On (1) DZA-1110: DVD Authoring Software Add-On (2) DZA-1120: DVD Authoring EMT Software DZA-1130: DVD Video Encoding S/W for Network DZA-V1100N: DVD Audio Encoding S/W for Network
DVD SubPicture Encoding S/W for Network DZA-A1100N: DZA-P1100N: DVD Menu Authoring S/W for Network
DVD Supervisor/MUX S/W for Network DZA-U1100N:

DVA-V1100

DVD Video Encoder Unit





DVA-M1100A

DVD Emulator Unit





DVA-MC1100

DVD Emulator Control Unit





14 DVD Authoring System

DVA-P1100

DVD SubPicture Encoder/Decoder Board



DVA-A1100

DVD Audio Encoder Interface Board



DVA-R1100

DVD Authoring 9-pin Interface Board



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Monitors

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HDM-14E1U	207
HDM-14E5U	208
PHM-20M8U	
PHM-14M8U	210
BVM-D24E1WU/D24E1WE/	
D24E1WA	
BVM-D20E1U/D20E1E/D20E1A	212
BVM-D14H1U/D14H1E/D14H1A	213
BVM-D14H5U/D14H5E/D14H5A	214
BVM-D9H1U/D9H1E/D9H1A	_
BVM-D9H5U/D9H5E/D9H5A	216
BVM-20E1U/20E1E	217
BVM-20F1U/20F1E	218
BVM-20G1U/20G1E	219
BVM-14E1U/14E1E	220
BVM-14E5U/14E5E	221
BVM-14F1U/14F1E	222
BVM-14F5U/14F5E	
BVM-14G1U/14G1E	224
BVM-14G5U/14G5E	
BVM-14M4DE	
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Optional Accessories	228

HDM-20E1U (NTSC)

20-inch (19-inch*) HD color monitor

•HR Trinitron® assures a high resolution of 850 TV lines (16:9 mode) •SMPTE-C standard phosphors •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Built-in YP_BP_R/RGB inputs •HD SDI (High Definition Serial Digital Interface) input available as an option •Accepts signals with field frequency 59.94 or 60.00 Hz •Accepts signals with Active line 1035 & 1080 •Frequency response 30 MHz •Aspect ratio is switchable between 16:9 and 4:3 •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Serial remote control capability (mutual control with BVM-D/E/F/G Series) •Controlled with BKM-10R/11R

See Optional Accessories on page 228.





Specifications

-			HDM-20E1U
	System		1125/1080 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 274M)
			1125/1035 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 240M)
न्न			525 59.94 Hz 1:1 16:9 (SMPTE 293M)
General	Power requi	rements	100 V to 240 V AC ±10 % 50/60 Hz
පී	Power cons	umption	195 W max.
	Dimensions		444 (W) × 414 (H) × 570 (D) mm (17 ½ × 16 % × 22 ½ inches)
	Mass		approx. 38 kg (83 lb 12 oz)
ο	CRT type		20-inch HR Trinitron, AG Pitch: 0.25 mm, Center Resolution: 850 TV lines
₹T mance	Visual scree	en	386 mm × 217mm (15 ½ × 8 5 % inches)
CRT or m	(Viewable are	ea, measured diagonally)	(443 mm (17 ½ inches))
o fi	Color tempe	erature	D65, D93, USER
be	Preset brigh	tness	100 cd/m ² (30 ft-L) (when a 1 Vp-p 100 % white signal is input)
	Normal scar	า	5 % over scan of effective picture area
Raster and Picture performance	Under scan		3 % under scan of the effective picture area
ster and Picto performance	Stability of r	aster size	1% of picture height for a 10 to 90 % APL change
d E			when 100% peak white is set to 100 cd/m² (30 ft-l) brightness
a j	Linearity		Within 0.5 % within circle centered on the screen
eri e			with a diameter equal to the vertical height, 1.0 % at any other point
Ras	Convergence	e	Within 0.4 mm within circle centered on the screen
			with a diameter equal to the vertical height, 0.7 mm at any other point
	Video		BNC (3), with loop-through
		GBR	1 Vp-p ±6 dB, sync negative, high impedance
		Υ	1 Vp-p ±6 dB, high impedance
ခြင		PB/PR	0.7 Vp-p ±6 dB, high impedance
Ja I	Ext sync		BNC (1), with loop-through
٥		Composite	0.3 to 8 Vp-p, high impedance
Input performance	Return loss		More than 40 dB (10 MHz when 75Ω terminated)
불	Remote	OPTION	RS-232C Mini DIN 8-pin (1)
宣		CONTROL UNIT	RS-422 for BKM-10R, D-sub 9-pin (1)
		REMOTE1	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE2	D-sub 9-pin (1)
		ISR	D-sub 9-pin (1)
RGB performance	Frequency r	· .	60 Hz to 30 MHz ± dB
P. G. B. G.	DC restorati	on	Back porch type
pe _			Back porch level: within 1 % of peak luminance, 10 to 90 % APL

Supplied Accessories

AC cable/AC plug holder/Tally label/Fuse/Operation manual

^{*} viewable area, measured diagonally

HDM-14E1U (NTSC)

14-inch (13-inch*) HD color monitor

•HR Trinitron assures a high resolution of 700 TV lines (16:9 mode) •SMPTE-C standard phosphors •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Built-in YP_BP_R/RGB inputs •HD SDI (High Definition Serial Digital Interface) input available as an option •Accepts signals with field frequency 59.94 or 60.00 Hz •Accepts signals with Active line 1035 & 1080 •Frequency response 30 MHz •Aspect ratio is switchable between 16:9 and 4:3 •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Serial remote control capability (mutual control with BVM-D/E/F/G Series) •Controlled with BKM-10R/11R

See Optional Accessories on page 228.





Specifications

-			HDM-14E1U
	System		1125/1080 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 274M)
			1125/1035 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 240M)
<u> </u>			525 59.94 Hz 1:1 16:9 (SMPTE 293M)
General	Power requ	irements	100 V to 240 V AC ±10 % 50/60 Hz
පී	Power cons	sumption	155 W max.
	Dimensions	3	346 (W) × 280 (H) × 530 (D) mm (13 % × 11 ½ × 20 ½ inches)
	Mass		approx. 23 kg (50 lb 11 oz)
Q	CRT type		14-inch HR Trinitron, AG Pitch: 0.22 mm, Center Resolution: 700 TV lines
. a	Visual scre	en	266 mm x 150 mm (10 ½ × 6 inches)
CRT Sm.	(Viewable ar	ea, measured diagonally)	(305 mm (12 1/s inches))
CRT performance	Color temp	erature	D65, D93, USER
be	Preset brigl	ntness	100 cd/m ² (30 ft-L) (when a 1 Vp-p 100 % white signal is input)
	Normal sca	n	5 % over scan of effective picture area
Raster and Picture performance	Under scan	1	3 % under scan of the effective picture area
<u>5</u> 5	Stability of	raster size	1% of picture height for a 10 to 90 % APL change
d P			when 100% peak white is set to 100 cd/m² (30 ft-l) brightness
E 로	Linearity		Within 0.5 % within circle centered on the screen
er er			with a diameter equal to the vertical height, 1.0 % at any other point
Ras	Convergen	ce	Within 0.3 mm within circle centered on the screen
			with a diameter equal to the vertical height, 0.6 mm at any other point
	Video		BNC (3), with loop-through
		GBR	1 Vp-p ±6 dB, sync negative, high impedance
		Υ	1 Vp-p ±6 dB, high impedance
ခင		PB/PR	0.7 Vp-p ±6 dB, high impedance
nar	Ext sync		BNC (1), with loop-through
٥		Composite	0.3 to 8 Vp-p, high impedance
performance	Return loss		More than 40 dB (10 MHz when 75Ω terminated)
=	Remote	OPTION	RS-232C Mini DIN 8-pin (1)
Input		CONTROL UNIT	RS-422 for BKM-10R, D-sub 9-pin (1)
		REMOTE1	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE2	D-sub 9-pin (1)
		ISR	D-sub 9-pin (1)
ance	Frequency	·	60 Hz to 30 MHz ± dB
RGB performance	DC restorat	tion	Back porch type
per			Back porch level: within 1 % of peak luminance, 10 to 90 % APL

Supplied Accessories

AC cable/AC plug holder/Tally label/Fuse/Operation manual

^{*} viewable area, measured diagonally

HDM-14E5U (NTSC)

14-inch (13-inch*) HD color monitor

•HR Trinitron assures a high resolution of 700 TV lines (16:9 mode) •SMPTE-C standard phosphors •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Built-in YP_BP_R/RGB inputs •HD SDI (High Definition Serial Digital Interface) input available as an option •Accepts signals with field frequency 59.94 or 60.00 Hz •Accepts signals with Active line 1035 & 1080 •Frequency response 30 MHz •Aspect ratio is switchable between 16:9 and 4:3 •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Serial remote control capability (mutual control with BVM-D/E/F/G Series) •Controlled with BKM-11R

See Optional Accessories on page 228.





Specifications

			HDM-14E5U
	System		1125/1080 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 274M)
			1125/1035 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 240M)
<u>ल</u>			525 59.94 Hz 1:1 16:9 (SMPTE 293M)
General	Power require	ements	100 V to 240 V AC ±10 % 50/60 Hz
Ge	Power consu	ımption	170 W max.
	Dimensions		482 (W) × 280 (H) × 530 (D) mm (19 × 11 1/6 × 20 1/6 inches)
	Mass		approx. 26 kg (57 lb)
Q.	CRT type		14-inch HR Trinitron, AG Pitch: 0.22 mm, Center Resolution: 700 TV lines
2	Visual screer	ı	266 mm × 150 mm (10 ½ × 6 inches)
CRT orms	(Viewable area	a, measured diagonally)	(305 mm (12 ½ inches))
CRT performance	Color temper	rature	D65, D93, USER
8	Preset bright	ness	100 cd/m ² (30 ft-L) (when a 1 Vp-p 100 % white signal is input)
	Normal scan		5 % over scan of effective picture area
<u>r</u> e	Under scan		3 % under scan of the effective picture area
Raster and Picture performance	Stability of ra	ster size	1% of picture height for a 10 to 90 % APL change
d P			when 100% peak white is set to 100 cd/m² (30 ft-l) brightness
an	Linearity		Within 0.5 % within circle centered on the screen
ter			with a diameter equal to the vertical height, 1.0 % at any other point
as β	Convergence	9	Within 0.3 mm within circle centered on the screen
_			with a diameter equal to the vertical height, 0.6 mm at any other point
	Video		BNC (3), with loop-through
		GBR	1 Vp-p ±6 dB, sync negative, high impedance
ø	;	Υ	1 Vp-p ±6 dB, high impedance
JE C		PB/PR	0.7 Vp-p ±6 dB, high impedance
Ĕ	Ext sync		BNC (1), with loop-through
Input performance		Composite	0.3 to 8 Vp-p, high impedance
be	Return loss		More than 40 dB (10 MHz when 75 Ω terminated)
D T	Remote	OPTION	RS-232C Mini DIN 8-pin (1)
드		REMOTE1	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE2	D-sub 9-pin (1)
		ISR	D-sub 9-pin (1)
auce	Frequency re	esponse	60 Hz to 30 MHz ±3 dB
RGB performance	DC restoration	on	Back porch type
perf			Back porch level: within 1 % of peak luminance, 10 to 90 % APL

Supplied Accessories

AC cable/AC plug holder/Tally label/Fuse/Operation manual

^{*} viewable area, measured diagonally

PHM-20M8U (NTSC)

20-inch (19-inch*) HD color monitor

•HR Trinitron assures a high resolution of 700 TV lines (16:9 mode) •SMPTE-C standard phosphors •Accepts analog YPBPR/RGB signals •HD/VD separately synchronizing capability •HD SDI (High Definition Serial Digital Interface) input available as an option •Aspect ratio is switchable between 16:9 and 4:3 •Accepts signals with field frequency 59.94 or 60.00 Hz •Accepts signals with Active line 1035 & 1080 •Frequency response 24 MHz •Stabilized color temperature obtained with a beam current feedback circuit •Color temperature D65, D93 or user preset (3200K to 10000K) selectable •Underscan, Blue Only, and H/V delay mode available •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Auto/Manual degaussing and Degauss-Delay function •Serial and Parallel remote control capability •Mountable into a 19-inch EIA standard rack with the optional SLR-103A





Specifications

		HDM-20M8U
	System	1125/1080 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 274M)
		1125/1035 60 Hz, 59.94 Hz 2:1 16:9 (SMPTE 240M)
		525 59.94 Hz 1:1 16:9 (SMPTE 293M)
_		525 59.94 Hz 1:1 4:3 (DXC-9000 VGA mode)
General	Power requirements	AC 100 V to 120 V, 220 V to 240 V ±10 % 50/60 Hz
l Ĕ	Power consumption	150 W
ဖြ	(): with HD SDI interface	(164 W)
	Dimensions	450(W) × 458(H) × 557(550)(D) mm
	(): D without 16:9 mask	17 ¾ × 18 ½ × 22(21 ¾) inches
	Mass	approx. 34 kg (74 lb 15 oz)
	CRT type	20-inch HR Trinitron, AG Pitch: 0.30 mm,
a	OKT type	Center Resolution: 700 TV lines (4:3 mode: 900 TV lines)
2	Visual screen size 16:9 mode	388 × 218 mm (15 ³ / ₈ × 8 ⁵ / ₈ inches)
CRT ormance	Visual screen size 16.9 mode	(445 mm (17 % inches))
CRI	(viewable area. 4:3 mode	388 × 292 mm (15 % × 11 ½ inches)
perf	measured diagonally)	(484 mm (19 ½ inches))
8		D65/D93/USER1/USER2
	Color temperature	
	Normal scan	7 % overscan
9	Under scan	5 % underscan
E SE	Linearity H	Less than 5 %
돌을	V	Less than 5 %
and Picto	Convergence	Within 0.5 mm within circle centered on the screen
<u>a</u> 2		with a diameter equal to the vertical height, 0.6 mm at any other point
e të	Stability of raster size H	Less than 1 %
Raster and Picture performance	V	Less than 1 %
∝	High voltage regulation	Less than 1 %
	Phosphor	SMPTE-C
	INPUT A/B YPBPR/GBR IN	BNC (6)
		YP₅PR: 0.7 Vp-p
		GBR: 0.7 Vp-p
		Sync on G/Y: Tri-level sync: 0.6 Vp-p
		Bi-level sync: 0.3 Vp-p
		Automatic 75 Ω termination
	Ext sync IN	BNC (2)
		Bi-level sync: 4.0 Vp-p ±6 dB, negative
		Tri-level sync: 0.6 Vp-p
=		Automatic 75 Ω termination
Input	HD/VD IN	BNC (HD × 2/VD × 2)
드		4.0 Vp-p ±6 dB, negative or positive
		(HD and VD must be the same pole)
		Automatic 75 Ω termination
	AUDIO IN	RCA Pin (MONO ×2)
		–5 dBu 47 kΩ
	OUTPUT A YPBPR/GBR OUT	BNC (3), loop-through
	Ext sync OUT	BNC (1), loop-through
	HD/VD IN	BNC (2) (HD × 1/VD × 1), loop-through
	AUDIO OUT	RCA Pin (MONO) (1), loop-through
	REMOTE	20-pin (1) (Parallel), D-sub 9-pin (2) (attachment for serial remote)
_	. P L	

Supplied accessories:

16:9 mask with covers/AC cable/AC plug holder/Tally label/20-pin connector cable/Operation manual Serial remote connector

^{*} viewable area, measured diagonally

PHM-14M8U (NTSC)

14-inch (13-inch*) HD color monitor

•HR Trinitron assures a high resolution of 600 TV lines (16:9 mode) •SMPTE-C standard phosphors •Accepts analog YPBPR/RGB signals •HD/VD separately synchronizing capability •HD SDI (High Definition Serial Digital Interface) input available as an option •Aspect ratio is switchable between 16:9 and 4:3 •Accepts signals with field frequency 59.94 or 60.00 Hz •Accepts signals with Active line 1035 & 1080 •Frequency response 24 MHz •Stabilized color temperature obtained with a beam current feedback circuit •Color temperature D65, D93 or user preset (3200K to 10000K) selectable •Underscan, Blue Only, and H/V delay mode available •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Auto/Manual degaussing and Degauss-Delay function •Serial and Parallel remote control capability •Mountable into a 19-inch EIA standard rack with the optional MB-502B and SLR-102





Specifications

SMPTE 274M)	m
SMPTE 240M)	
293M)	
(GA mode)	
0 % 50/60 Hz	r requirements
- 11 - 10 - 10 - 10 - 10 - 10 - 10 - 10	er consumption
	rith HD SDI interface
O) mm	nsions
nches	without 16:9 mask
z)	Without 10.9 mask
·	
0.25 mm,	type
de: 900 TV lines)	
nes)	Il screen size 16:9 mode
ches)	able area, 4:3 mode
	sured diagonally)
2	temperature
	al scan
	r scan
	rity H
	V
on the screen	ergence
mm at any other point	9
min at any outer point	lity of raster size H
	V
	voltage regulation
	phor
	T A/B YPBPR/GBR IN
	I A/B Y PBPR/GBR IN
6 Vp-p	
3 Vp-p	
on	
	Ext sync IN
egative	
on	
	HD/VD IN
ositive	
e pole)	
on	
	AUDIO IN
	PUT A YPBPR/GBR OUT
	Ext sync OUT
through	HD/VD IN
rougn ent for serial remote)	OTE
p-thr	AUDIO OUT

Supplied accessories:

16:9 mask with covers/AC cable/AC plug holder/Tally label/20-pin connector cable/Operation manual Serial remote connector

^{*} viewable area, measured diagonally

New

BVM-D24E1WU(NTSC)/D24E1WE/ D24E1WA(PAL)

24-inch (22-inch*) color monitor

•HR Trinitron (flat surface, 16:9 aspect) assures a high resolution of 1000 TV lines (16:9/4:3 modes) •SMPTE-C/EBU standard phosphors •Signals with the frequency range of 15.625 kHz to 45 kHz are acceptable with various configuration of optional BKM boards •4 optional BKM board slots available •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Beam landing correction •Digital uniformity •Built-in H/V delay, underscan, blue only, mono, tally functions •Built-in test signal generator •Built-in YPBPR/GBR inputs •Frequency response 48 Hz to 30 MHz •Aspect ratio is switchable between 16:9 and 4:3 •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Serial remote control capability (mutual control with BVM-E/F/G Series and HDM Series) •Controlled with BKM-10R/11R



Multiformat

See Optional Accessories on page 228.

Specifications

			BVM-D24E1WU/E/A
	Signal format		15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table on page 227.)
	Signal format Type		Display unit
			100 V to 240 V AC ±10 %, 50/60 Hz
	Power requirements		100 V to 240 V AC ±10 %, 50/60 HZ 155 W (205 W)
	Power consumption (with Option board; Max.)		
_	Dimensions		565.5(W) × 436.8(H) × 587.3(D) mm
			22 ¾ × 17 ¼ × 23 ½ inches
ē	Mass		approx. 51 kg (112 lb 3 oz)
General	CRT CRT type		24-inch HR Trinitron (flat surface, 16:9 aspect)
	AG pitch		0.25 mm, 90° deflection, ø29.1 mm in-line gun
	Visual screen		4:3 361.6(W) × 271.2(H) mm, (452 mm)
	(Viewable area, measured diagonally)		16:9 482.1(W) × 271.2(H) mm, (553.1 mm)
			4:3 14 ½ × 10 ¾, (17 ½)
			16:9 19 × 10 ³ 4, (21 ⁷ / ₈)
	Phosphor		SMPTE-C/EBU
	Video		BNC x 3, with loop-through
	1.000	GBR	1.0 Vp-p ±6 dB, positive
		Y	1.0 Vp-p ±6 dB, high impedance
w		P _B /P _R	0.7 Vp-p ±6 dB, high impedance
Inputs/Outputs	Ext sync	I B/I K	BNC × 1, with loop-through
불	LX Oylio	Composite	0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync
Q	Remote	OPTION	RS-232C for BKM-11R Mini DIN 8-pin
ts		CONTROL UNIT	RS-422 for BKM-10R D-sub 9-pin
ᅙ		REMOTE 1 / Serial remote	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE 2 / Parallel remote 1	D-sub 9-pin × 1 (Short to ground)
		Parallel remote 2	Not Applicable
		ISR	D-sub 9-pin × 1
	I - I		'
Video signal performance	Differential gain (DG)		Within 5 % for luminance from 0 to 100 cd/m ²
sić Tag	Differential phase (DP)		Within 5° for luminance from 0 to 100 cd/m ²
용흔	Frequency response		48 Hz to 30 MHz +1 dB/-3 dB
≥ 8	DC restoration		Back porch type, back porch level: within 1 % of peak luminance, 10 to 90 % APL
ti in	Retrace tim	e Horizontal	under 3.77 μsec
Synchro- nization		Vertical	under 650 µsec
	Normal scan		5 % over scan of the effective picture area
걸	Under scan		3 % under scan of the effective picture area
ag .	Linearity		Less than 0.5 % within circle centered on the screen
ية	=		with a diameter equal to the vertical height, 1.0 % at any other point
ē	Color tempe	erature	D65 / D93 / COL 1 / COL 2 (User adjustable)
ė	Convergence		Less than 0.3 mm within circle centered on the screen with a diameter equal
₹			to the vertical height, 0.5 mm at any other point
흥	Preset brigh	ntness	100 cd/m² (30 fL) (when a 1.0 Vp-p 100 % white signal is input)
Raster and picture performance	Stability of raster size		1 % of picture height (at 100 cd/m² peak luminescence, 10 to 90 % APL)
	Scan delay Horizontal		Approx. 3/8 line
	Vertical		Approx. 1/2 field
	Center resolution		16:9 1000 TV lines, 4:3 1000 TV lines
			0 to 35 °C Optimum operating range 20 to 30 °C
tions	Operating temperature		-10 to 40 °C
per	Operating temperature Storage temperature Humidity		
			30 to 85 % (no condensation)
Cune	Ilied Access		AC cable, AC plug holder Tally label, Fuse, Operation manual

Supplied Accessories

AC cable, AC plug holder, Tally label, Fuse, Operation manual

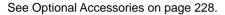
^{*} viewable area, measured diagonally

New

BVM-D20E1U(NTSC)/D20E1E/ D20E1A(PAL)

20-inch (19-inch*) color monitor

•HR Trinitron assures a high resolution of 900/700 TV lines (4:3/16:9 modes) •SMPTE-C/EBU standard phosphors •Signals with the frequency range of 15.625 kHz to 45 kHz are acceptable with various configuration of optional BKM boards •4 optional BKM board slots available •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Built-in H/V delay, underscan, blue only, mono, tally functions •Built-in test signal generator •Built-in YPBPR/GBR inputs •Frequency response 48 Hz to 30 MHz •Aspect ratio is switchable between 16:9 and 4:3 (Both 16:9 and 4:3 masks supplied) •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Serial remote control capability (mutual control with BVM-E/F/G Series and HDM Series) •Controlled with BKM-10R/11R



^{*} viewable area, measured diagonally

Multiformat



Specifications

	BVM-D20F1U/E/A
Signal format	15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table on page 227.)
Туре	Display unit
Power requirements	100 V to 240 V AC ± 10%, 50/60 Hz
Power consumption (with Option board; Max.)	150 W (210 W)
Dimensions	444(W) × 414(H) × 570(D) mm
	17 ½ × 16 % × 22 ½ inches
Mass	approx. 38 kg (83 lb 10oz)
	20-inch HR Trinitron
	0.30 mm, 90° deflection, ø30.6 mm in-line gun
	4:3 386(W) × 291(H) mm, (482 mm)
	16:9 386(W) × 218(H) mm, (443 mm)
(Violitable area, measured diagonally)	4:3 15 ¹ / ₄ × 11 ¹ / ₂ , (19)
	16:9 15 ¹ / ₄ × 8 ⁵ / ₄ , (17 ¹ / ₂)
Phosphor	SMPTE-C/EBU
·	BNC × 3, with loop-through
	1.0 Vp-p ±6 dB, positive
I - I	
	1.0 Vp-p ±6 dB, high impedance
	0.7 Vp-p ±6 dB, high impedance
	BNC × 1, with loop-through
	0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync
	RS-232C for BKM-11R Mini DIN 8-pin
	RS-422 for BKM-10R D-sub 9-pin
	RS-485 serial interface, D-sub 9-pin, with loop-through
	D-sub 9-pin x 1 (Short to ground)
	Not Applicable
	D-sub 9-pin x 1
	Within 5 % for luminance from 0 to 100 cd/m ²
	Within 5° for luminance from 0 to 100 cd/m ²
	48 Hz to 30 MHz +1 dB/-3 dB
	Back porch type, back porch level: within 1 % of peak luminance, 10 to 90 % APL
	under 3.77 µsec
	under 650 μsec
	5 % over scan of the effective picture area
	3 % under scan of the effective picture area
Linearity	Less than 0.5 % within circle centered on the screen
	with a diameter equal to the vertical height, 1 % at any other point
·	D65 / D93 / COL 1 / COL 2 (User adjustable)
Convergence	Less than 0.3 mm within circle centered on the screen with a diameter equal
	to the vertical height, 0.5 mm at any other point
	100 cd/m ² (30 fL) (when a 1.0 Vp-p 100 % white signal is input)
	1 % of picture height (at 100 cd/m² peak luminescence, 10 to 90 % APL)
	Approx. 3/8 line
Vertical	Approx. 1/2 field
Center resolution	16:9 700 TV lines, 4:3 900 TV lines
Center resolution	
Operating temperature	0 to 35 °C Optimum operating range 20 to 30 °C
	0 to 35 °C Optimum operating range 20 to 30 °C -10 to 40 °C
	Type Power requirements Power consumption (with Option board; Max.) Dimensions Mass CRT CRT type AG pitch Visual screen (Viewable area, measured diagonally) Phosphor Video GBR Y PB/PR Ext sync Composite Remote OPTION CONTROL UNIT REMOTE 1 / Serial remote REMOTE 2 / Parallel remote 1 Parallel remote 2 ISR Differential gain (DG) Differential phase (DP) Frequency response DC restoration Retrace time Horizontal Vertical Normal scan Under scan Linearity Color temperature Convergence Preset brightness Stability of raster size Scan delay Horizontal

Supplied Accessories

4:3 mask, AC cable, AC plug holder, Tally label, Fuse, Operation manual

New

BVM-D14H1U(NTSC)/D14H1E/D14H1A(PAL)

14-inch (13-inch*) color monitor

•HR Trinitron assures a high resolution of 800/600 TV lines (4:3/16:9 modes) •SMPTE-C/EBU standard phosphors •Signals with the frequency range of 15.625 kHz to 45 kHz are acceptable with various configuration of optional BKM boards •3 optional BKM board slots available •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Built-in H/V delay, underscan, blue only, mono, 3 color tally functions •Built-in YPBPR/GBR inputs •Frequency response 48 Hz to 24 MHz •Aspect ratio is switchable between 16:9 and 4:3 (both 16:9 and 4:3 masks supplied) •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Parallel and serial remote control capability •Mountable into a 19-inch EIA standard rack with the optional BKM-31E14 •Controlled with BKM-10R/11R



Multiformat

See Optional Accessories on page 228.

Specifications

			BVM-D14H1U/E/A
	Signal format		15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table on page 227.)
	Туре		Display unit
	Power requ		100 V to 240 V AC ± 10%, 50/60 Hz
	Power consumption (with Option board; Max.)		100 W (115 W)
	Dimensions		346(W) × 265(H) × 530(D) mm
_			13 ½ × 10 ½ × 20 ½ inches
General	Mass		approx. 21 kg
	CRT CRT type		14-inch HR Trinitron
တ	AG pitch		0.25 mm, 90° deflection, ø29.4 mm in-line gun
	Visual screen		4:3 267.5(W) × 200.6(H) mm, (331.6 mm)
	(Viewable area, measured diagonally)		16:9 267.5(W) × 150.5(H) mm, (306.9 mm)
			4:3 10 % × 8, (13 1/s)
			16:9 10 ⁵ / ₄ × 6, (12 ¹ / ₆)
	Pho	osphor	SMPTE-C/EBU
	Video		BNC \times 3, with loop-through (75 Ω auto terminated)
		GBR	1.0 Vp-p ±6 dB, positive
		Υ	1.0 Vp-p ±6 dB, high impedance
ι		P _B /P _R	0.7 Vp-p ±6 dB, high impedance
Inputs/Outputs	Ext sync		BNC \times 1, with loop-through (75 Ω auto terminated)
Ħ		Composite	0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync
S	Remote	OPTION	RS-232C for BKM-11R Mini DIN 8-pin
Ħ		CONTROL UNIT	RS-422 for BKM-10R D-sub 9-pin
宣		REMOTE 1 / Serial remote	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE 2 / Parallel remote 1	D-sub 9-pin × 1 (Short to ground)
		Parallel remote 2	Modular connector 6-pin
		ISR	Not Applicable
ट ब्र	Differential gain (DG)		Within 5 % for luminance from 0 to 100 cd/m ²
ng i	Differential phase (DP)		Within 5° for luminance from 0 to 100 cd/m ²
8 5	Frequency response		48 Hz to 24 MHz +0 dB/-3 dB
Video signal performance	DC restoration		Back porch type, back porch level: within 1 % of peak luminance, 10 to 90 % APL
ė 5	Retrace tim	e Horizontal	under 3.77 µsec
Synchro- nization		Vertical	under 650 µsec
	Normal scan		5 % over scan of the effective picture area
2	Under scan		3 % under scan of the effective picture area
a a	Linearity		Less than 1.0 % within circle centered on the screen
وّ			with a diameter equal to the vertical height, 2.0 % at any other point
performance	Color temperature		D65 / D93 / COL 1 / COL 2 (User adjustable)
<u>ē</u>	Convergence		Less than 0.4 mm within circle centered on the screen with a diameter equal
picture			to the vertical height, 0.5 mm at any other point
ρi	Preset brightness		120 cd/m ² (35 fL) (when a 1.0 Vp-p 100 % white signal is input)
Raster and	Stability of raster size		1 % of picture height (at 120 cd/m² peak luminescence, 10 to 90 % APL)
	Scan delay Horizontal		Approx. 1/4 line
	Vertical		Approx. 1/2 field
	Center resolution		16:9 600 TV lines, 4:3 800 TV lines
<u>ت</u> د	Operating temperature		0 to 35 °C Optimum operating range 20 to 30 °C
ratin	Storage temperature		-10 to 40 °C
Operating conditions	Humidity		30 to 85 % (no condensation)
	Tidrillary		40 models AO calcile Added Talking Indian Constitution

Supplied Accessories

4:3 mask, AC cable, AC plug holder, Tally label, Operation manual

^{*} viewable area, measured diagonally

New

BVM-D14H5U(NTSC)/D14H5E/ D14H5A (PAL)

Multiformat

14-inch (13-inch*) color monitor

•HR Trinitron assures a high resolution of 800/600 TV lines (4:3/16:9 modes) •SMPTE-C/EBU standard phosphors •Signals with the frequency range of 15.625 kHz to 45 kHz are acceptable with various configuration of optional BKM boards •3 optional BKM board slots available •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Built-in H/V delay, underscan, blue only, mono, 3 color tally functions •Built-in YP_BP_R/GBR inputs •Frequency response 48 Hz to 24 MHz •Aspect ratio is switchable between 16:9 and 4:3 (both 16:9 and 4:3 masks supplied) •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Parallel and serial remote control capability •Mountable into a 19-inch EIA standard rack with the optional BKM-30E14 •Controlled with BKM-11R



See Optional Accessories on page 228.

Specifications

_			BVM-D14H5U/E/A
	Signal form	at	15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table on page 227.)
	Type		Stand-alone monitor
	Power requ	irements	100 V to 240 V AC ± 10%, 50/60 Hz
	Power consumption (with Option board; Max.)		100 W (115 W)
	Dimensions	, , ,	482(W) × 265(H) × 530(D) mm
	Dimonolono	·	19 × 10 ½ × 20 % inches
General	Mass		арргох. 23 Кд
u e	CRT CRT type		14-inch HR Trinitron
ဗိ	AG pitch		0.25 mm, 90° deflection, ø29.4 mm in-line gun
_		ual screen	4:3 267.5(W) × 200.6(H) mm, (331.6 mm)
		vable area, measured diagonally)	16:9 267.5(W) × 150.5(H) mm, (306.9 mm)
	(viev	vable area, measured diagonally)	4:3 10.5 × 8, (13.1%)
			16:9 10 % × 6, (12 %)
	Dho	osphor	SMPTE-C/EBU
		ЭБРПОІ	
	Video	ODD	BNC × 3, with loop-through (75 Ω auto terminated)
		GBR	1.0 Vp-p ±6 dB, positive
		Y	1.0 Vp-p ±6 dB, high impedance
nts		P _B /P _R	0.7 Vp-p ±6 dB, high impedance
효	Ext sync		BNC \times 1, with loop-through (75 Ω auto terminated)
5	_	Composite	0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync
ts/	Remote	OPTION CONTROL UNIT	RS-232C for BKM-11R Mini DIN 8-pin
Inputs/Outputs			Not Applicable
드		REMOTE 1 / Serial remote	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE 2 / Parallel remote 1	D-sub 9-pin × 1 (Short to ground)
		Parallel remote 2	Modular connector 6-pin
	ĪSR		Not Applicable
Video signal performance	Differential gain (DG)		Within 5 % for luminance from 0 to 100 cd/m ²
sig	Differential phase (DP)		Within 5° for luminance from 0 to 100 cd/m ²
육호	Frequency response		48 Hz to 24 MHz +0 dB/-3 dB
ĕ ≼i	DC restorat	ion	Back porch type, back porch level: within 1 % of peak luminance, 10 to 90 % APL
Synchro- nization	Retrace tim	e Horizontal	under 3.77 µsec
Sync		Vertical	under 650 µsec
	Normal sca	n	5 % over scan of the effective picture area
ğ	Under scan		3 % under scan of the effective picture area
ma	Linearity		Less than 1.0 % within circle centered on the screen
ē	,		with a diameter equal to the vertical height, 2.0 % at any other point
e l	Color tempe	erature	D65 / D93 / COL 1 / COL 2 (User adjustable)
<u>e</u>	Convergend		Less than 0.4 mm within circle centered on the screen with a diameter equal
<u>ặ</u>	J		to the vertical height, 0.5 mm at any other point
ρi	Preset brigh	ntness	120 cd/m² (35 fL) (when a 1.0 Vp-p 100 % white signal is input)
힏	Stability of r	aster size	1% of picture height (at 120 cd/m² peak luminescence, 10 to 90 % APL)
Raster and picture performance	Scan delay		Approx. 1/4 line
ste		Vertical	Approx. 1/2 field
Ra	Center reso	lution	16:9 600 TV lines, 4:3 800 TV lines
	Operating to	emperature	0 to 35 °C Optimum operating range 20 to 30 °C
Operating conditions	Storage ten		-10 to 40 °C
Duo	Humidity	.po.a.a.o	30 to 85 % (no condensation)
	nlied Acces		4-3 mask AC cable AC plus holder Tally label Operation manual

Supplied Accessories

4:3 mask, AC cable, AC plug holder, Tally label, Operation manual

^{*} viewable area, measured diagonally

New

BVM-D9H1U(NTSC)/D9H1E/ D9H1A(PAL)

Multiformat

9-inch (8-inch*) color monitor

•HR Trinitron assures a high resolution of 450/340 TV lines (4:3/16:9 modes) •Signals with the frequency range of 15.625 kHz to 45 kHz are acceptable with various configurations of optional BKM boards •3 optional BKM board slots available •Stabilized color temperature obtained with a beam current feedback circuit •Built-in H/V delay, underscan, blue only, mono, 3 color tally functions •Built-in YPBPR/GBR inputs •Frequency response 48 Hz to 17 MHz •Aspect ratio is switchable between 16:9 and 4:3 (both 16:9 and 4:3 masks supplied) •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Parallel and serial remote control capability •Mountable into a 19-inch EIA standard rack with the optional MB-520 •3 alternative power sources available: supplied AC power adaptor, external DC 12 V and optional lithium-ion battery BP-L60A and L90A •Controlled with BKM-10R/11R



See Optional Accessories on page 228.

Specifications

			BVM-D9H1U/E/A
	Signal forma	at	15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table on page 227.)
	Type		Display unit
	Power requi	irements	100 V to 240 V AC ± 10 %, 50/60 Hz
	Power consumption (with Option board; Max.)		60 W (85 W)
	Dimensions		217(W) × 174(H) × 417.9 (352.5)*1 (D) mm
_			8 5% × 6 7/8 × 16 1/2 (14) inches
Fa	Mass		approx. 8.1 kg (17 lb 13 oz), 8.9 kg (19 lb 9 oz)*2
General	CRT CR	T type	9-inch HR Trinitron
ဖ	ĀG	pitch	0.25 mm, 70° deflection, ø21.6 mm in-line gun
	Visi	ual screen	4:3 155.4(W) × 115(H) mm, (190.7 mm)
	(View	vable area, measured diagonally)	16:9 155.4(W) × 87.4(H) mm, (178 mm)
	,		4:3 6 1/8 × 4 5/8, (7 5/8)
			16:9 6 1/8 × 3 1/2, (7 1/6)
	Pho	osphor	P-22
	Video	<u>'</u>	BNC × 3, with loop-through (75 Ω auto terminated)
	Vidoo	GBR	1.0 Vp-p ±6 dB, positive
		Y	1.0 Vp-p ±6 dB, high impedance
S		P _B /P _R	0.7 Vp-p ±6 dB, high impedance
Ĕ	Ext sync	15,110	BNC × 1, with loop-through (75 \Quad auto terminated)
풀		Composite	0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync
Inputs/Outputs	Remote	OPTION	RS-232C for BKM-11R Mini DIN 8-pin
Ħ		CONTROL UNIT	D-sub 9-pin (RS-485/422 switchable)
g		REMOTE 1 / Serial remote	RS-485 serial interface, D-sub 9-pin, with loop-through
_		REMOTE 2 / Parallel remote 1	D-sub 9-pin x 1 (Short to ground)
		Parallel remote 2	Modular connector 6-pin
		ISR	Not Applicable
8 5	Differential of	gain (DG)	Within 5 % for luminance from 0 to 100 cd/m ²
agi	Differential		Within 5° for luminance from 0 to 100 cd/m²
S S	Frequency		48 Hz to 17 MHz +0 dB/-3 dB
Video signal performance	DC restorat		Back porch type, back porch level: within 1 % of peak luminance, 10 to 90 % APL
ė 5	Retrace time	e Horizontal	under 3.77 µsec
Synchro- nization	Troudou um	Vertical	under 650 µsec
	Normal scar		5 % over scan of the effective picture area
performance	Under scan		3 % under scan of the effective picture area
Jar	Linearity		Less than 2.0 % within circle centered on the screen
<u> </u>	Lineanty		with a diameter equal to the vertical height
erf	Color tempe	erature	D65 / D93 / COL 1 / COL 2 (User adjustable)
o O	Convergence		Less than 0.4 mm within circle centered on the screen with a diameter equal
į	Convergence	,,,	to the vertical height, 0.5 mm at any other point
Dic.	Preset brigh	ntness	120 cd/m² (35 fL) (when a 1.0 Vp-p 100% white signal is input)
and picture	Stability of r		1 % of picture height (at 120 cd/m² peak luminescence, 10 to 90 % APL)
- a	Scan delay	Horizontal	Approx. 1/4 line
Raster		Vertical	Approx. 1/2 field
Ra	Center reso		16:9 340 TV lines, 4:3 450 TV lines
	Operating to		0 to 35 °C Optimum operating range 20 to 30 °C
atin	Storage ten		-10 to 40 °C
Operating conditions	Humidity		30 to 85 % (no condensation)
	nlied Acces		4/3 mask AC cable AC plus holder AC adapter Tally label Operation manual

Supplied Accessories
*1 Depth without AC adaptor
*2 Mass with AC adaptor

^{*} viewable area, measured diagonally

^{4:3} mask, AC cable, AC plug holder, AC adaptor, Tally label, Operation manual

New

BVM-D9H5U(NTSC)/D9H5E/ D9H5A(PAL)

9-inch (8-inch*) color monitor

•HR Trinitron assures a high resolution of 450/340 TV lines (4:3/16:9 modes) •Signals with the frequency range of 15.625 kHz to 45 kHz are acceptable with various configurations of optional BKM boards •3 optional BKM boards slots available •Stabilized color temperature obtained with a beam current feedback circuit •Built-in H/V delay, underscan, blue only, mono, 3 color tally functions •Built-in YPBPR/GBR inputs •Frequency response 48 Hz to 17 MHz •Aspect ratio is switchable between 16:9 and 4:3 (both 16:9 and 4:3 masks supplied) •4:3 Area Marker to find the 4:3 area inside the 16:9 picture •Parallel and serial remote control capability •Mountable into a 19-inch EIA standard rack with the optional MB-520 •Audio capability and built-in speaker •3 alternative power source available: supplied AC power adaptor, external DC 12 V and optional lithium-ion battery BP-L60A and L90A •Controlled with BKM-11R

See Optional Accessories on page 228.

Multiformat



Specifications

			BVM-D9H5U/E/A
	Signal	format	15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table on page 227.)
eral	Type		Stand-alone monitor
	Power	requirements	100 V to 240 V AC ± 10 %, 50/60 Hz
		onsumption (with Option board; Max.)	60 W (85 W)
	Dimen		217(W) × 217(H) × 417.9 (352.5)*1 (D)mm
			8 5% × 8 5% × 16 ½ (14) inches
	Mass		approx. 9.3 kg (20 lb 7 oz), 10.1 kg (22 lb 4 oz)* ²
	CRT	CRT type	9-inch HR Trinitron
	01(1	AG pitch	0.25 mm, 70° deflection, ø21.6 mm in-line gun
		Visual screen	4:3 155.4(W) × 115(H) mm, (190.7 mm)
		(Viewable area, measured diagonally)	16:9 155.4(W) × 87.4(H) mm, (178 mm)
		(viewable area, measured diagonally)	$4:3 6 \% \times 4 \%, (7 \%)$
			16:9 6 1/6 × 3 1/2, (7 1/8)
	Video		BNC × 3, with loop-through (75 Ω auto terminated)
		GBR	1.0 Vp-p ±6 dB, positive
		Y	1.0 Vp-p ±6 dB, high impedance
ts.		P _B /P _R	0.7 Vp-p ±6 dB, high impedance
ᇗ	Ext syr		BNC \times 1, with loop-through (75 Ω auto terminated)
ጀ		Composite	0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync
Inputs/Outputs	Remote OPTION		RS-232C for BKM-11R Mini DIN 8-pin
		CONTROL UNIT	Not Applicable
		REMOTE 1 / Serial remote	RS-485 serial interface, D-sub 9-pin, with loop-through
		REMOTE 2 / Parallel remote 1	D-sub 9-pin × 1 (Short to ground)
		Parallel remote 2	Modular connector 6-pin
	ĪSR		Not Applicable
ice a	Differential gain (DG)		Within 5 % for luminance from 0 to 100 cd/m ²
nar	Differe	ntial phase (DP)	Within 5° for luminance from 0 to 100 cd/m ²
8 5	Differential gain (DG) Differential phase (DP) Frequency response DC restoration		48 Hz to 17 MHz +0 dB/-3 dB
per vid	DC res	toration	Back porch type, back porch level: within 1 % of peak luminance, 10 to 90 % APL
<u> </u>	Retrac	e time Horizontal	under 3.77 µsec
nization		Vertical	under 650 µsec
	Norma	l scan	5 % over scan of the effective picture area
Ē	Under	scan	3 % under scan of the effective picture area
Ë	Lineari	ty	Less than 2.0 % within circle centered on the screen
٥			with a diameter equal to the vertical height
performance	Color t	emperature	D65 / D93 / COL 1 / COL 2 (User adjustable)
<u>e</u>	Conve	rgence	Less than 0.4 mm within circle centered on the screen with a diameter equal
큵			to the vertical height, 0.5 mm at any other point
₫	Preset	brightness	120 cd/m² (35 fL) (when a 1.0 Vp-p 100% white signal is input)
2		y of raster size	1 % of picture height (at 120 cd/m² peak luminescence, 10 to 90 % APL)
Raster and picture	Scan c		Approx. 1/4 line
ste		Vertical	Approx. 1/2 field
Sa	Center	resolution	16:9 340 TV lines, 4:3 450 TV lines
		ing temperature	0 to 35 °C Optimum operating range 20 to 30 °C
ition	Stores	e temperature	-10 to 40 °C
Operating	Humid		30 to 85 % (no condensation)
- 0	וווווטרון	ıty	วบ เบ ๑๖ % (แบ บบเนยเรลแบบ)

Supplied Accessories

*1 Depth without AC adaptor

^{*} viewable area, measured diagonally

^{*1} Depth without AC adaptor *2 Mass with AC adaptor

 $^{4{:}3\ \}mathsf{mask}, \mathsf{AC}\ \mathsf{cable}, \mathsf{AC}\ \mathsf{plug}\ \mathsf{holder}, \mathsf{AC}\ \mathsf{adaptor}, \mathsf{Tally}\ \mathsf{label}, \mathsf{Operation}\ \mathsf{manual}$

BVM-20E1U (NTSC) /20E1E/A (PAL)

20-inch (19-inch*) color monitor

•Divided type with separate display and control unit •HR Trinitron assures a high resolution of more than 1000 TV lines •SMPTE-C and EBU standard phosphors •Built-in auto set-up system for chroma, phase, and white balance •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Component (Y/R-Y/B-Y)/RGB input facility available •Accepts various signals by inserting optional input boards

- directly into the rear panel (equipped with 4 open slots)

 •Number of inputs expandable with optional input expansion boards:
 - •24 composite inputs or
 - •12 SDI or
 - •9 component or
 - •8 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system

See Optional Accessories on page 228.



She	cilications				
			BVM-20E1U	BVM-20E1E/A	
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL	
<u> </u>	Power requirem	nents	AC 100 to 2	40 V ±10 %	
Je I	Power consump	otion	Max. 2	200 W	
Dimensions 444(W) × 414(H) × 570(D) mm (171/2 × 163/8 × 221/2 inch				n (17 ¹ / ₂ × 16 ³ / ₈ × 22 ¹ / ₂ inches)	
Mass 37 kg (81 lb 9 oz)			I lb 9 oz)		
a)	CRT type		HR Trinitron, AG pitch: 0.25 mm,	Center resolution: 1000 TV lines	
ğ	Screen size		Diagonal: 48.2 cm (19 inches), Width: 38.6 cm	n (15 ¹ / ₄ inches), Height: 29.1 cm (11 ¹ / ₂ inches)	
CRT performance	Color temperatu	ıre	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,	
٦Ĕ			which allows alternative setting of color temperature		
Preset brightness 100 cd/m² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)				p-p 100 % white signal is input)	
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment		
<u> </u>	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed		
ster and Picture performance	Stability of raster size		size 1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness		
a l	Linearity of cen	ty of center H & V lines 0.5 % of the picture height		picture height	
ster	Geometry (all o	ver screen)	reen) 1 % of the picture height		
Raster	Convergence		0.4 mm within circle centered on screen and with a diar	neter equal to vertical height, 0.7 mm at any other point	
8	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance	
ă		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance	
or o	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance	
erf		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance	
Input performance	EXT SYNC		Loop-through BNC, 0.3 to 8 V	Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
ם	Return loss		More than 46 dB (7 MHz	z when 75 Ω terminated)	
3B nance	Frequency resp	onse	100 Hz to 10) MHz ±1 dB	
RGB performano	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL	

^{*} viewable area, measured diagonally

BVM-20F1U (NTSC) /20F1E/A (PAL)

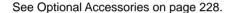
20-inch (19-inch*) color monitor

•Divided type with separate display and control unit •HR Trinitron assures a high resolution of 900 TV lines •SMPTE-C and EBU standard phosphors •Built-in auto set-up system for chroma, phase, and white balance •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Component (Y/R-Y/B-Y)/RGB input facility available •Accepts various signals by inserting optional input boards directly into the rear panel (equipped with 4 open slots) •Number of inputs expandable with optional input expansion boards:

- •24 composite inputs or
- •12 serial digital or
- •9 component or
- •8 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability • Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system



^{*} viewable area, measured diagonally



Ope	cilications			
			BVM-20F1U	BVM-20F1E/A
al	System		525 lines 60 fields NTSC	625 lines 50 fields PAL
	Power requirem	ents	AC 100 to 2	40 V ±10 %
General	Power consump	otion	Max. 2	200 W
ge	Dimensions		444(W) × 414(H) × 570(D) mn	n (17 ¹ / ₂ × 16 ³ / ₈ × 22 ¹ / ₂ inches)
	Mass		37 kg (81	I lb 9 oz)
a	CRT type		HR Trinitron, AG pitch: 0.3 mm,	Center resolution: 900 TV lines
Ĕ	Screen size		Diagonal: 482 mm (19 inches), Width: 386 mm	n (15 ¹ / ₄ inches), Height: 291 mm (11 ¹ / ₂ inches)
CRT performance	Color temperatu	ire	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,
٦ چ			which allows alternative setting of color temperature	
ă	Preset brightnes	SS	100 cd/m ² (30 ft-L) (When a 1 V	p-p 100 % white signal is input)
<u>e</u>	Normal scan 4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment		5, Raster size has internal adjustment	
<u>इ</u> 8	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed	
ster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness	
e j	Linearity of cent	er H & V lines	0.5 % of the picture height	
Raster perfe	Geometry (all o	l over screen) 1 % of the picture height		
Ra	Convergence		0.4 mm within circle centered on screen and with a diar	meter equal to vertical height, 0.7 mm at any other point
9	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
ă		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance
l E	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance
performance		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
Ħ	EXT SYNC		Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
Input	Return loss		More than 46 dB (7 MHz when 75 Ω terminated)	
RGB formance	Frequency resp	onse	100 Hz to 10 MI	Hz –1 dB/–3 dB
RG	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL

BVM-20G1U (NTSC) /20G1E/20G1A (PAL)

20-inch (19-inch*) color monitor

•Divided type with separate display and control unit •HR Trinitron assures a high resolution of 800 TV lines
•SMPTE-C and EBU standard phosphors •Built-in auto setup system for chroma, phase, and white balance •Precise
color temperature adjustment is possible with a color
analyzer via RS-232C interface •Stabilized color temperature
obtained with a beam current feedback circuit •Component
(Y/R-Y/B-Y)/RGB input facility available •Accepts various
signals by inserting optional input boards directly into the
rear panel (equipped with 1 open slot) •Number of inputs
expandable with optional input expansion boards:

- •6 composite inputs or
- •3 SDI or
- •3 component or
- •2 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system

See Optional Accessories on page 228.



			BVM-20G1U	BVM-20G1E/20G1A
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL
<u>.</u>	Power requirem	nents	AC 100 to 2	40 V ±10 %
General	Power consump	otion	Max.	140 W
ge	Dimensions		444(W) × 414(H) × 570(D) mr	n (17 ¹ / ₂ × 16 ³ / ₈ × 22 ¹ / ₂ inches)
	Mass		37 kg (8 ⁻	1 lb 9 oz)
a)	CRT type		HR Trinitron, AG pitch: 0.3 mm,	Center resolution: 800 TV lines
CRT performance	Screen size		Diagonal: 482 mm (19 inches), Width: 386 mr	m (15 ¹ / ₄ inches), Height: 291 mm (11 ¹ / ₂ inches)
S. E. S. E.	Color temperate	ure	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,
Ĕ			which allows alternative se	etting of color temperature
<u> </u>	Preset brightne	SS	100 cd/m ² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)	
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment	
5 S	ଥ Under scan		4:3 aspect ratio, Approx3 %, Picture and blanking boundaries displayed	
Raster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness	
ᅙᆲ	Linearity of cen	ter H & V lines	Less than 1 % of the picture height	
ster per	Geometry (all o	ver screen)	2 % of the p	icture height
Ra	Convergence		0.5 mm within circle centered on screen and with a diar	neter equal to vertical height, 0.9 mm at any other point
e	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
performance		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance
Į.	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance
er.		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
Input	EXT SYNC		SYNC Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
르	Return loss		More than 46 dB (6 MHz	z when 75 Ω terminated)
RGB rformance	Frequency resp	onse	50 Hz to 7	MHz <u>+1</u> dB
RC	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL

^{*} viewable area, measured diagonally

BVM-14E1U (NTSC) /14E1E/A (PAL)

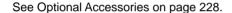
14-inch (13-inch*) color monitor

•Divided type with separate display and control unit •HR Trinitron assures a high resolution of 900 TV lines •SMPTE-C and EBU standard phosphors •Built-in auto set-up system for chroma, phase, and white balance •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Component (Y/R-Y/B-Y)/RGB input facility available •Accepts various signals by inserting optional input boards directly into the rear panel (equipped with 2 open slots) •Number of inputs expandable with optional input expansion boards:

- •12 composite or
- •6 SDI or
- •5 component or
- •4 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system



^{*} viewable area, measured diagonally



			BVM-14E1U	BVM-14E1E/A
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL
<u>.</u>	Power requirer	nents	AC 100 to 2	40 V ±10 %
General	Power consum	ption	Max.	145 W
g	Dimensions		346(W) × 280(H) × 530(D) mr	m (13 ⁵ / ₈ × 11 ¹ / ₈ × 20 ⁷ / ₈ inches)
Mass		23 kg (50	lb 11 oz)	
Φ	CRT type		HR Trinitron, AG pitch: 0.22 mm	, Center resolution: 900 TV lines
CRT performance	Screen size		Diagonal: 33.2 cm (131/8 inches), Width: 26.8	cm (10 ⁵ / ₈ inches), Height: 20.1 cm (8 inches)
S.E.	Color temperat	ure	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,
چ پ			which allows alternative so	etting of color temperature
ā	Preset brightness		100 cd/m² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)	
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment	
<u>5</u> 8	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed	
ster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness	
	Linearity of center H & V lines		0.5 % of the picture height	
Raster perf	Geometry (all over screen)		1 % of the picture height	
Ra	Convergence		0.3 mm within circle centered on screen and with a diar	neter equal to vertical height, 0.6 mm at any other point
9	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
ă		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance
l E	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance
)er		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
Input performance	EXT SYNC		Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
르	Return loss		More than 46 dB (7 MHz when 75 Ω terminated)	
RGB performance	Frequency resp	oonse	100 Hz to 10) MHz ±1 dB
RG	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL

15 Monitors

BVM-14E5U (NTSC) /14E5E/A (PAL)

14-inch (13-inch*) color monitor

•HR Trinitron assures a high resolution of 900 TV lines
•SMPTE-C and EBU standard phosphors • Built-in auto setup system for chroma, phase, and white balance •Precise
color temperature adjustment is possible with a color
analyzer via RS-232C interface •Stabilized color temperature
obtained with a beam current feedback circuit •Component
(Y/R-Y/B-Y)/RGB input facility available •Accepts various
signals by inserting optional input boards directly into the
rear panel (equipped with 4 open slots) •Number of inputs
expandable with optional input expansion boards:

- •24 composite inputs or
- •12 SDI or
- •9 component or
- •8 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system

See Optional Accessories on page 228.



			BVM-14E5U	BVM-14E5E/A	
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL	
<u>.</u>	Power requiren	nents	AC 100 to 24	40 V ±10 %	
General	Power consum	ption	Max. 1	75 W	
g	Dimensions		482(W) × 280(H) × 530(D) m	m $(19 \times 11^{1}/8 \times 20^{7}/8 \text{ inches})$	
	Mass		26 kg (57 lb)	
Φ	CRT type		HR Trinitron, AG pitch: 0.22 mm,	Center resolution: 900 TV lines	
CRT performance	Screen size		Diagonal: 33.2 cm (131/8 inches), Width: 26.8	cm (10 ⁵ / ₈ inches), Height: 20.1 cm (8 inches)	
CRT E	Color temperat	ure	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,	
, e			which allows alternative se	tting of color temperature	
<u> </u>	Preset brightness		100 cd/m ² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)		
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment		
<u> </u>	Under scan		4:3 aspect ratio, Approx. −3 %, Picture and blanking boundaries displayed		
ster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness		
	Linearity of center H & V lines		0.5 % of the picture height		
Raster perf	Geometry (all over screen)		1 % of the picture height		
Ra	Convergence		0.3 mm within circle centered on screen and with a diameter equal to vertical height, 0.6 mm at any other point		
9	RGB	R/B	Loop-through BNC, 0.7 Vp	-p ±6 dB, high impedance	
performance		G	Loop-through BNC, 1.0 Vp-p ±6 dB	3, sync negative, high impedance	
o .	Component	Υ	Loop-through BNC, 1.0 Vp	-p ±6 dB, high impedance	
Ser L		R-Y/B-Y	Loop-through BNC, 0.7 Vp	-p ±6 dB, high impedance	
Input	EXT SYNC		Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance		
르	Return loss		More than 46 dB (7 MHz when 75 Ω terminated)		
RGB formance	Frequency resp	oonse	100 Hz to 10	MHz ±1 dB	
RG	DC restoration		Back porch type, Back porch level: within 1	% of peak luminance, 10 % to 90 % APL	

^{*} viewable area, measured diagonally

BVM-14F1U (NTSC) /14F1E/A (PAL)

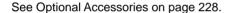
14-inch (13-inch*) color monitor

•Divided type with separate display and control unit •HR Trinitron assures a high resolution of 800 TV lines •SMPTE-C and EBU standard phosphors •Built-in auto set-up system for chroma, phase, and white balance •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Component (Y/R-Y/B-Y)/RGB input facility available •Accepts various signals by inserting optional input boards directly into the rear panel (equipped with 2 open slots) •Number of inputs expandable with optional input expansion boards:

- •12 composite inputs or
- •6 SDI or
- •5 component or
- •4 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system



^{*} viewable area, measured diagonally



			BVM-14F1U	BVM-14F1E/A
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL
<u>.e</u>	Power requirem	nents	AC 100 to 2	40 V ±10 %
General	Power consump	otion	Max.	145 W
ဗိ	Dimensions		346(W) × 280(H) × 530(D) mr	m (13 ⁵ / ₈ × 11 ¹ / ₈ × 20 ⁷ / ₈ inches)
	Mass		23 kg (50	lb 11 oz)
a)	CRT type		HR Trinitron, AG pitch: 0.25 mm	, Center resolution: 800 TV lines
CRT performance	Screen size		Diagonal: 33.2 cm (131/8 inches), Width: 26.8	cm (10 ⁵ / ₈ inches), Height: 20.1 cm (8 inches)
CRT	Color temperate	ıre	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,
٦ ڙ			which allows alternative se	etting of color temperature
ā	Preset brightness		100 cd/m² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)	
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment	
<u>5</u> 8	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed	
Raster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness	
흔	Linearity of center H & V lines		0.5 % of the picture height	
ster per	Geometry (all o	ver screen)	1 % of the p	icture height
Ra	Convergence		0.3 mm within circle centered on screen and with a diar	neter equal to vertical height, 0.6 mm at any other point
9	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
performance		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance
E	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance
) er		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
Input	EXT SYNC		Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
르	Return loss		More than 46 dB (7 MHz when 75 Ω terminated)	
RGB formance	Frequency resp	onse	100 Hz to 10) MHz ±1 dB
RG	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL

15 Monitors

BVM-14F5U (NTSC) /14F5E/A (PAL)

14-inch (13-inch*) color monitor

•HR Trinitron assures a high resolution of 800 TV lines
•SMPTE-C and EBU standard phosphors • Built-in auto setup system for chroma, phase, and white balance •Precise
color temperature adjustment is possible with a color
analyzer via RS-232C interface •Stabilized color temperature
obtained with a beam current feedback circuit •Component
(Y/R-Y/B-Y)/RGB input facility available •Accepts various
signals by inserting optional input boards directly into the
rear panel (equipped with 4 open slots) •Number of inputs
expandable with optional input expansion boards:

- •24 composite inputs or
- •12 SDI or
- •9 component or
- •8 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system

See Optional Accessories on page 228.



			BVM-14F5U	BVM-14F5E/A
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL
<u> </u>	Power requiren	nents	AC 100 to 2	40 V ±10 %
General	Power consum	ption	Max. 1	175 W
Ge	Dimensions		482(W) × 280(H) × 530(D) m	m (19 \times 11 1 /8 \times 20 7 /8 inches)
	Mass		26 kg	(57 lb)
Φ	CRT type		HR Trinitron, AG pitch: 0.25 mm	, Center resolution: 800 TV lines
CRT performance	Screen size		Diagonal: 33.2 cm (131/8 inches), Width: 26.8	cm (10 ⁵ / ₈ inches), Height: 20.1 cm (8 inches)
CRT E	Color temperat	ure	PRESET: Factory adjusted for 6500K w	rhite, MANUAL control is also available,
e e			which allows alternative se	etting of color temperature
ā	Preset brightne	ss	100 cd/m ² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)	
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment	
<u>5</u> 5	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed	
Raster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness	
f a	Linearity of center H & V lines		0.5 % of the picture height	
ster per	Geometry (all c	ver screen)	1 % of the picture height	
Ra	Convergence		0.3 mm within circle centered on screen and with a diar	neter equal to vertical height, 0.6 mm at any other point
e	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
aŭ		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance
or n	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance
performance		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance
Input	EXT SYNC		Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
르	Return loss		More than 46 dB (7 MHz when 75 Ω terminated)	
RGB rformance	Frequency resp	oonse	100 Hz to 10) MHz ±1 dB
RG	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL

^{*} viewable area, measured diagonally

BVM-14G1U (NTSC) /14G1E/14G1A (PAL)

14-inch (13-inch*) color monitor

•Divided type with separate display and control unit •HR Trinitron assures a high resolution of 800 TV lines •SMPTE-C and EBU standard phosphors •Built-in auto set-up system for chroma, phase, and white balance •Precise color temperature adjustment is possible with a color analyzer via RS-232C interface •Stabilized color temperature obtained with a beam current feedback circuit •Component (Y/R-Y/B-Y)/RGB input facility available •Accepts various signals by inserting optional input boards directly into the rear panel (equipped with 1 open slot) •Number of inputs expandable with optional input expansion boards:

- •6 composite inputs or
- •3 SDI or
- •3 component or
- •2 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system

See Optional Accessories on page 228.



			BVM-14G1U	BVM-14G1E/14G1A	
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL	
<u>.</u>	Power requirem	nents	AC 100 to 240 V ±10 %		
General	Power consump	otion	Max.	120 W	
ge	Dimensions		346(W) × 280(H) × 530(D) mr	n (13 ⁵ / ₈ × 11 ¹ / ₈ × 20 ⁷ / ₈ inches)	
		22 kg (48	3 lb 8 oz)		
a	CRT type		HR Trinitron, AG pitch: 0.25 mm	, Center resolution: 800 TV lines	
CRT performance	Screen size		Diagonal: 332 mm (131/8 inches), Width: 268	mm (10 ⁵ / ₈ inches), Height: 201 mm (8 inches)	
CRT P m	Color temperati	ıre	PRESET: Factory adjusted for 6500K w	rhite, MANUAL control is also available,	
ef o			which allows alternative se	which allows alternative setting of color temperature	
مَ	Preset brightness		100 cd/m² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)		
ē	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment		
<u>5</u> 8	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed		
ster and Picture performance	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness		
를 를	Linearity of center H & V lines		Less than 1 % of the picture height		
Raster perf	Geometry (all over screen)		2 % of the picture height		
Ra	Convergence		0.4 mm within circle centered on screen and with a diar	neter equal to vertical height, 0.8 mm at any other point	
e	RGB	R/B	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance	
performance		G	Loop-through BNC, 1.0 Vp-p ±6 d	B, sync negative, high impedance	
l e	Component	Υ	Loop-through BNC, 1.0 Vp	p-p ±6 dB, high impedance	
)er		R-Y/B-Y	Loop-through BNC, 0.7 Vp	p-p ±6 dB, high impedance	
Input	EXT SYNC		Loop-through BNC, 0.3 to 8 V	p-p negative, high impedance	
宣	Return loss		More than 46 dB (6 MHz when 75 Ω terminated)		
RGB formance	Frequency resp	onse	50 Hz to 7	MHz +1 dB	
RG	DC restoration		Back porch type, Back porch level: within	1 % of peak luminance, 10 % to 90 % APL	

^{*} viewable area, measured diagonally

15 Monitors

BVM-14G5U (NTSC) /14G5E/14G5A (PAL)

14-inch (13-inch*) color monitor

•HR Trinitron assures a high resolution of 800 TV lines
•SMPTE-C and EBU standard phosphors • Built-in auto setup system for chroma, phase, and white balance •Precise
color temperature adjustment is possible with a color
analyzer via RS-232C interface •Stabilized color temperature
obtained with a beam current feedback circuit •Component
(Y/R-Y/B-Y)/RGB input facility available •Accepts various
signals by inserting optional input boards directly into the
rear panel (equipped with 1 open slot) •Number of inputs
expandable with optional input expansion boards:

- •6 composite inputs or
- •3 SDI or
- •3 component or
- •2 Y/C inputs

(Types and numbers of inputs depend on option boards used.)

•Aspect ratio is switchable between 4:3 and 16:9, 16:9 bezel is available as an option •Serial or parallel remote control capability •Memory card BKM-12Y available as an option for easy monitor set-up •Supported by the Sony Interactive Status Reporting (ISR) system

See Optional Accessories on page 228.



			BVM-14G5U	BVM-14G5E/14G5A
	System		525 lines 60 fields NTSC	625 lines 50 fields PAL
<u>.</u>	Power requiren	nents	AC 100 to 2	40 V ±10 %
General	Power consum	ption	Max. 1	20 W
ဗိ	Dimensions		482(W) × 280(H) × 530(D) m	m (19 \times 11 ¹ / ₈ \times 20 ⁷ / ₈ inches)
	Mass		24 kg (52	lb 14 oz)
Φ	CRT type		HR Trinitron, AG pitch: 0.25 mm,	Center resolution: 800 TV lines
CRT performance	Screen size		Diagonal: 332 mm (131/8 inches), Width: 268 r	, , ,
CRT E	Color temperat	ure	PRESET: Factory adjusted for 6500K w	hite, MANUAL control is also available,
, å			which allows alternative se	etting of color temperature
<u> </u>	Preset brightness		100 cd/m² (30 ft-L) (When a 1 Vp-p 100 % white signal is input)	
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raster<+5 %, Raster size has internal adjustment	
and Picture ormance	Under scan		4:3 aspect ratio, Approx. –3 %, Picture and blanking boundaries displayed	
ster and Pict	Stability of raster size		1 % of picture height for a 10 to 90 % APL change when 100 % peak level white set to 100 cd/m² (30 fL) brightness	
	Linearity of center H & V lines		Less than 1 % of the picture height	
Raster perf	Geometry (all over screen)		2 % of the picture height	
Ra	Convergence		0.4 mm within circle centered on screen and with a dian	neter equal to vertical height, 0.8 mm at any other point
9	RGB	R/B	Loop-through BNC, 0.7 Vp	-p ±6 dB, high impedance
performance		G	Loop-through BNC, 1.0 Vp-p ±6 dl	B, sync negative, high impedance
Į.	Component	Υ	Loop-through BNC, 1.0 Vp	-p ±6 dB, high impedance
e T		R-Y/B-Y	Loop-through BNC, 0.7 Vp	-p ±6 dB, high impedance
Input	EXT SYNC		Loop-through BNC, 0.3 to 8 Vp-p negative, high impedance	
르	Return loss		More than 46 dB (6 MHz when 75 Ω terminated)	
RGB formance	Frequency resp	oonse	50 Hz to 7	MHz ±1 dB
RG	DC restoration		Back porch type, Back porch level: within 1	I % of peak luminance, 10 % to 90 % APL

^{*} viewable area, measured diagonally

BVM-14M4DE (PAL)

14-inch colour monitor

•HR Trinitron assures a high resolution of 800 TV lines •EBU standard phosphors •Auto chroma/phase set-up •Stabalized colour temperature obtained with a beam current feedback circuit •270Mb/s component serial digital interface (video) terminal as standard •Component (Y/R-Y/B-Y or RGB), Y/C and composite video inputs •Aspect ratio is switchable between 4:3 and 16:9 •On-screen menu in five languages for set-up and adjustment •RS-422 serial remote control capability with optional interface board BKM-103 •Remote/tally input •Colour temperature D65/D93/User preset (3200K to10000K) •Mountable into a 19-inch EIA standard rack with the optional MB-502B and SLR-102

See Optional Accessories on page 229.





			BVM-14M4DE		
	System		PAL/NTSC/SECAM/NTSC4.43 automatically selected		
<u>a</u>	Power requiren	nents	AC 100 to 240 V, 50/60 Hz		
General	Power consum	ption	Max. 99 W		
ő	Dimensions		346(W) × 340(H) × 431(D) mm (13 5/6 × 13 1/2 × 17 inches)		
	Mass		17.7 kg (39 lb)		
CRT	CRT type		14-inch HR Trinitoron CRT with EBU phosphor, 90° deflection, AG pitch: 0.25 mm, Center resolution: 800 TV lines		
Derfor	Color temperat	ure	D65/D93/User preset (3200K to 10000K) (Factory preset 6500K)		
2	Normal scan		4:3 aspect ratio, blanked raster<7 %, raster size has internal adjustment		
Raster and Picture performance	Under scan		4:3 aspect ratio, approx. –5 %, picture blanking boundaries displayed		
and	Stability of rast	er size	H: 1.0 % V: 1.5 %		
ster	Linearity of cen	tre H&V lines	H: Less than 4 %, V: Less than 4 %		
æ	Convergence	Convergence 0.4 mm within circle centered on the screen with a diameter equal to vertical height, 0.5 mm at any of			
	Video		Loop-through BNC 1 Vp-p ±6 dB, sync negative 75 Ω termination*1		
a)	Y/C		Loop-through Mini DIN 4-pin Y: 1 Vp-p ±6 dB, sync negative, C (NTSC): 0.286 Vp-p ±6 dB,		
Input performance		C (PAL): 0.3 Vp-p ±6 dB, Automatic 75 Ω termination*1			
Ĕ	Analog compon	ent G/Y	BNC 0.7 Vp-p non-composite or 1 Vp-p ±6 dB composite, sync negative, Automatic 75 Ω termination*1		
l se	(RGB/Y/R-Y/B-Y) R/B/R-Y/B-Y	BNC, 0.7 Vp-p ± 6 dB non-composite, 75 Ω		
효	Component ser	ponent serial digital Active through BNC 270 Mb/s, 10-bit sample			
ם	EXT SYNC		Loop-through BNC 4.0 Vp-p ±6 dB, negative, Automatic 75 Ω termination*1		
	Frequency resp		RGB: 10 MHz ±3 dB, Component: 10MHz ±3 dB (Y signal), Composite: 10 MHz ±3 dB (Y signal), Y/C: 10 MHz ±3 dB (Y signal)		
	Aperature corre	ection	Adjustable continuously up to 6 dB boost at 4.5 MHz		
	Speaker out		0.8 W, monaural		
æ	Digital video	Quantization	10 bit/sample		
auc		Signal system	525/60 or 625/50, automatic selection		
SE		Sampling frequence	Y: 13.5 MHz, R-Y/B-Y:6.75 MHz		
SDI performance		Bit rate	270 Mb/s		
ਕੁ		Video bandwidtl	Y: 100 Hz to 5.75 MHz –3 dB to 1 dB (at low passfilter out) R-Y/B-Y: 100 Hz to 2.75 MHz –3 dB to 1 dB		

^{*1 75} Ω termination is automatically set to OFF when a connection is made to the OUT connector. 0 dBu = 0.775r.m.s.

BVM-8045QD (NTSC)/9045D (PAL)

8-inch (9-inch) Color Monitor

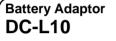
•Component serial digital interface terminal as standard
•Aspect ratio is selectable between 16:9 and 4:3 by the button
on the front panel •HR Trinitron CRT provides 450TV lines at
center •Stable color temperature from a beam current
feedback circuit •Component (Y/R-Y/B-Y or analog RGB),
LINE A (composite video or Y/C), LINE B (composite video)
inputs •NTSC comb filter •Accepts external sync and sync on
Green •Tally input •Color tempernture D65 •Blue only, H/V
delay, Underscan capability •AC/DC (XLR-4pin) operation
capability •Front panel degauss button •19-inch EIA standard
rack mountable with a second BVM-8045QD/9045D or an
optional blank panel MB-509 by using the optional MB-507
rack mounting bracket •Wired remote control capability

Supplied accessories: AC power cord

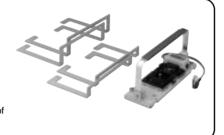
Mini DIN 8-pin connector (350mm, 13 7/8 inches)

Tally number plates Operation manual

See Optional Accessories on page 229.



•Attaches a rechargeable Lithiun-Ion Battery Pack BP-L60A or BP-L90A to a PVM-8045QD/9045D with this adaptor. •Retractable handle •Easily detachable upper part of adaptor bracket







			BVM-8045QD	BVM-9045D					
	System		NTSC/PAL/SECAM/NTSC4	.43 automatically selected					
न्न	Power require	ments	AC 100 to 240 V, 50/60 Hz DC 12 V (XLR 4-pin)						
General	Power consum	ption	AC: 48 W, DC: 44 W	AC: 45 W, DC: 42 W					
ဗိ	Dimensions		217(W) × 217(H) × 352.5(D)	mm (8 ⁵ / ₈ × 8 ⁵ / ₈ × 14 inches)					
	Mass		8.5 kg (18	lb 1 oz)					
CRT	CRT type		9-inch HR Trinitoron CRT, 70° deflection, AG pi	tch: 0.25 mm, Center resolution: 450 TV lines					
CR perforn	Color tempera	ture	D6	5					
<u>e</u>	Normal scan		4:3 aspect ratio, Blanked raste	er<6 %, Raster size has internal adjustment					
ig Si	Under scan		4:3 aspect ratio, Approx3 %	, Picture blanking boundaries displayed					
Raster and Picture performance	Stability of ras	ter size	H: 1 % V	: 1.5 %					
ster a	Linearity		Less than 2 % of t	he picture height					
Ras	Convergence		0.43 mm within circle centered on the screen and with a diameter equal to vertical height, 0.53 mm at any other point						
	Video		Loop-through BNC ±6 dB composite, sync negative 75 Ω termination*1						
	Y/C		Loop-through Mini DIN 4-pin Y: 1Vp-p ±6 dE	B, sync negative C (PAL): 0.3 Vp-p ±6 dB,					
			C (NTSC): 0.286 Vp-p ±6 dB, A	Automatic 75 Ω termination*1					
8	Component	Y	Loop-through BNC 1 Vp-p ± 6 dB sync negative, 75 Ω						
nan		R-Y, B-Y	Loop-through BNC 0.7 Vp-p ± 6 dB positive, 75 Ω						
Į,	Analog RGB	G	Loop-through BNC 1 Vp-p ± 6 dB sync on green, 75 Ω						
per		R, B	Loop-through BNC 0.7 Vp						
Input performance	Component se	rial digital	Active through BNC 27	,					
트	EXT SYNC		Loop-through BNC 4 Vp-p ±6 dB neg						
	Remote Input		8-pin mini DIf						
	Frequency resp		RGB: 6 MHz -3 dB, Component: 6 MHz -3 dB (Y signal), Cor						
	Aperature corr	ection	Adjustable continuously up	to 6 dB boost at 3.0 MHz					
9	Digital video	Quantization	10-bit s	ample					
_ a		Signal system	525/60 or 625/50, a	utomatic selection					
SDI		Sampling frequency	Y: 13.5 MHz, R-\	//B-Y:6.75 MHz					
SDI performance		Bit rate	CCIR Recommendat	,					
g		Video bandwidth	Y: 100 Hz to 5.75 MHz –3 dB to 1 dB R-Y/B-Y: 100 F	Hz to 2.75 MHz -3 dB to 1 dB (at low passfilter out)					

^{*1 75} Ω termination is automatically set to OFF when connection is made to the OUT connector.

HDM/BVM Monitor Optional Accessories

DIM 200*1 Carial Digital Interface 4:2:2 Decoder Adapter	HDM-20E1U	HDM-14E1U	HDM-14E5U	BVM-D24E1WU/D24E1WE/ D24E1WA	BVM-D20F1U/D20F1E/ D20F1A	BVM-20E1U/20E1E/A	BVM-20F1U/20F1E/A	BVM-20G1U/20G1E/ 20G1A	BVM-D14H1U/D14H1E/ D14H1A	BVM-D14H5U/D14H5E/ D14H5A	BVM-14E1U/14E1E/A	BVM-14E5U/14E5E/A	BVM-14F1U/14F1E/A	BVM-14F5U/14F5E/A	BVM-14G1U/14G1E/ 14G1A	BVM-14G5U/14G5E/ 14G5A	BVM-D9H1U/D9H1E/ D9H1A	BVM-D9H5U/D9H5E/ D9H5A
BKM-20D* ¹ Serial Digital Interface 4:2:2 Decoder Adaptor (3 digital active loop-through/3 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	_
BKM-21D*1 Serial Digital Interface Multi Decoder Adaptor (3 digital active loop-through/3 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-22X Serial Digital Interface Expansion Adaptor (NTSC/PAL/SECAM) (3 digital active loop-through/3 analog composite loop-through inputs)	-	-	-	0	0	0	0	-	-	-	0	0	0	0	-	-	-	-
BKM-24N*1 NTSC Decoder Adaptor (6 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-25P*1 PAL Decoder Adaptor (6 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-26M*1 PAL-M Decoder Adaptor (6 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-27T*1 Tri-standard Decoder Adaptor (6 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-28X Analog Video Input Expansion Adaptor (6 analog composite loop-through inputs)	-	-	-	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-41HD HD SDI Input Adaptor (1 digital with monitor out/1 analog component loop-through inputs)	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
BKM-42HD HD SDI Input Adaptor (2 digital with monitor out/1 analog component loop-through inputs)	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
BKM-48X HD Analog Input Expansion Adaptor (6 analog composite loop-through inputs)	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	-	-
BKM-142HD HD SDI Input Adaptor (2 digital with 1 monitor out inputs)	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	0	0
BKM-120D SDI 4:2:2 Input Adaptor (2 digital active loop-through inputs)	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	0	0
BKM-127W NTSC/PAL Input Adaptor (2 analog composite loop-through/1 Y/C loop-through inputs)	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	0	0
BKM-129X Analog Component Input Adaptor (1 analog component loop-through/1 ext sync loop-through inputs)	-	-	-	-	-	-	-	-	0	0	_	-	-	-	-	-	0	0
BKM-10R Control Unit	0	0	-	0	0	0	0	0	0	-	0	-	0	-	0	-	0	-
BKM-11R Control Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BKM-12Y*2 Memory Card	0	0	0	0	0	0	0	0	_	-	0	0	0	0	0	0	-	-
BKM-14L Auto Set-up Probe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BKM-30E20*3 19-inch Rack Mount Kit	0	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-
BKM-31E14 19-inch Rack Mount Kit	-	0	-	-	-	-	-	_	0	-	0	-	0	_	0	-	-	_
BKM-30E14 19-inch Rack Mount Kit	-	-	0	-	-	-	-	-	-	0	-	0	-	0	-	0	-	-
BKM-33H20 16:9 Mask	-	_	-	-	-	0	0	0	-	-	_	-	-	-	-	-	_	_
BKM-33H14 16:9 Mask	-	-	-	-	-	-	-	_	-	-	0	0	0	0	0	0	-	_
BKM-32H Control Unit BKM-10R Attachment Kit for 20" Monitors	0	0	0	-	0	0	0	0	-	-	-	-	-	-	-	-	<u> </u>	<u> -</u>
BKM-34H Control Unit BKM-10R Attachment Kit for 24" Monitors	-	-	-	0	-	-	-	-	-	-	_	-	-	-	-	-	_	_
MB-509 Mounting Panel for EIA Standard Rack (5U) for 9" Stand-alone Monitors	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
MB-510 19-inch Rack Mount Kit for BKM-10R	0	0	-	-	_	0	0	0	-	-	0	-	0	-	0	-	-	<u> </u>
MB-519 Mounting Panel for EIA Standard Rack (4U) for 9" Display Unit Monitors	-	_	-	-	-	-	-	-	-	-	_	-	-	-	-	-	0	-
MB-520 19-inch Rack Mount Kit for 9" Monitors	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	0	0
VF-508 Monitor ENG Kit (Hood & Rear Protector)	-	-	-	-	-	-	-	-	-	-	_	-	_	-	-	-	0	0
RCC-5G/10G/30G Control cable for RS-485/422 Serial Remote Control (9-pin) *1 Each decoder adaptor can also function as an expansion adaptor.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

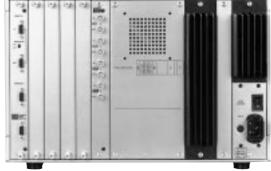
^{*1} Each decoder adaptor can also function as an expansion adaptor.
*2 Utilized with BKM-10R/11R.

0 = Optional

- = Not Applicable



BKM-10R



Rear panel of BVM-14E5U/14E5E/A

^{*3} BKM-30E20 can also be used with BKM-32H.

15 Monitors

Optional Accessories for BVM-14M4DE

Component serial digital interface kit (audio) BKM-102

BKM-103 RS-422 serial remote control kit

MB-502B Rack mounting bracket

SLR-102 Slide rail kit (use together with MB-502B) Tuner unit (for B/G/H, L, D/K systems) TU-1040E

Optional Accessories for BVM-8045QD/9045D

19-inch EIA standard rack mounting bracket

MB-509 Blank panel DCC-XLR4 Car battery cord DC-L10 Battery adaptor

Acceptable Formats for BVM-D Series Monitors

System	Horizontal scanning frequency	Total lines per frame	Activ lines per frame	Frame rate*1 (Hz)	Scanning format	Aspect	Standard
575/50I (PAL)	15.625	625	575	25	2:1 Interlace	16:9 / 4:3	ITU 601
480/60I (NTSC)	15.734	525	483	30	2:1 Interlace	16:9 / 4:3	ITU 601
575/50P	27.000	625	575	50	Progressive	16:9 / 4:3	_
480/60P	28.125	525	483	60	Progressive	16:9 / 4:3	SMPTE 293M
1080/24PsF*2	31.250	1125	1080	24	2:1 Interlace	16:9	_
1080/501	31.469	1125	1080	25	2:1 Interlace	16:9	SMPTE 274M
1035/601	33.750	1125	1035	30	2:1 Interlace	16:9	BTA S-001B
1080/601	33.750	1125	1080	30	2:1 Interlace	16:9	SMPTE 274M / BTA S-001B
720/60P	45.000	750	720	60	Progressive	16:9	SMPTE 296M

^{*1} Each of the above frame rates is also compatible with 1/1.001.
*2 The 1080/24PsF signal, consisting of 24 progressive frames per second, is displayed as a 48 Hz interlaced picture at the full 1920 × 1080 resolution.

16

Digital Video Services System

BDX-D1000	232
BDX-E1000	233
BDX-M1000	234
BDX-N1000	234
D7V E1001	225

BDX-D1000

MPEG Decoder Unit

•Fully compliant with MPEG2 4:2:2P@ML as well as MP@ML in standard. •The decoder inputs include, an L-band receiver with built-in QPSK demodulator, DVB-ASI. DVB-Parallel and SDTI (TS) •Control as a stand-alone unit is accomplished through front panel controls and/or remotely via the Ethernet port. •Video outputs include, SDI, analog composite and component •Audio outputs include, 4 AES/EBU digital, SDI embedded and Analog •Descrambler supports for DVB common and DES in option •Built-in frame synchronizer to synchronize the decoder output to house reference •Decodes VBI information such as VITC and Tele-Text •System control via Ethernet (10Base-T)

Accessories Supplied: Operation manual (1)

Installation manual (1)

Rack mount metals (2)

Optional function Boards

BDKP D1003, Descrambler Board (for DVB-common)

BDKP D1004, Descrambler Board (for DES)



Specifications:

Input

Transport Stream: DVB-ASI/SDTI (BNC × 1, switchable)

QPSK, L-band: 950 - 2150 MHz (BNC x 1)

Maximum input data rate: 190Mbps (Max. 54 Mbps per program) VS or VBS (BNC \times 1, 75 Ω loop through) Reference video:

Transport Stream Output

DVB-ASI (BNC × 1)

Video Decoding

MPEG2 MP@ML, 4:2:2P@ML, MPEG1 Compression:

VITC/UB, Tele-Text

Audio Decoding

Sampling frequency: 48, 44.1, 32kHz. MPEG-1, Layer I & II Compression:

Stereo/Joint-stereo/Dual-channel/Single-channel Modes

Linear PCM audio: Yes (with BDX-F1000) **Analog Video Output**

525/60 or 625/50 (Component), NTSC or PAL Formats:

(Composite)

Composite: BNC (2), 75 Ω Outputs: Component: BNC (3), 75 Ω

> 56 dB (composite with BDX-E1000) Signal to noise ratio:

Digital Video Output

525/60 or 625/50 (D1-Component) Formats:

Outputs: SDI, BNC (2), 75 Ω

Analog Audio Output Number of channels:

Outputs: XLR (4) +4 dBm (Adjustable range: -20 dBm to +4 dBm) Level:

Output Impedance: < 20 Ω

Frequency response: +0.6/-1.0 dB (20 Hz to 20 kHz)

Signal to noise: > 96 dB (1 kHz) Monitor output: XLR (2) (L&R)

Digital Audio Output

Number of channels: 4 (Expandable to 8 with BDKP-D1001)

External AES/EBU outputs:

BNC (2), 75 Ω

Embedded AES/EBU output:

SDI output

Ethernet (10Base-T) System control:

Maintenance port:

General

Control I/F

Dimensions (W/H/D): 482 × 88 × 424 mm (19 × 3 1/2 × 16 3/4 inches) (Approx.) 14 kg (30 lb 14 oz) Mass (Approx.): Operating temperature: 5°C to 40°C (41°F to 104°F)

120/240 V Power requirements: Power consumption: Max 120 W



BDX-E1000

MPEG Encoder Unit

•Fully compliant with MPEG2 MP@ML and 4:2:2P@ML (option) •MPEG2 MP@ML with bit rates from 1.5 to 15Mbps •MPEG2 4:2:2P@ML (option) with bit rates from 3.0 to 50Mbps (All I: 10 to 50Mbps) •Low-delay mode (less than 7 frames, encoder input to decoder output) •Scrambler support within the encoder in option •MPEG1 audio compression •Linear PCM audio mode •Video inputs include Component/Composite SDI and Analog •Audio inputs include SDI-embedded, AES/EBU, and Analog •Encodes VBI information such as VITC and Tele-Text •Transport stream output is DVB-ASI and DVB Parallel, and SDTI (TS) •Data/control interface via Ethernet (10Base-T) and RS-232C •Internal monitor decoder for local operation monitoring

Accessories Supplied: Operation manual (1)

Installation manual (1)

Rack mount metals (2)

Optional function Boards:

BDKP-E1002, Audio Input Board (for 5-8th AES/EBU

channels)

BDKP-E1003, 4:2:2Profile Upgrade Board BDKP-E1004, Scrambler Board (for DVB Common) BDKP-E1005, Scrambler Board (for DES)



Formats: 525/60 or 625/50 (Component), NTSC or PAL

(Composite

Inputs: Composite: BNC (1), 75 Ω loop through

Component: BNC (3), 75 Ω

Reference video: VS or VBS (BNC (1), 75 Ω , loop through) Signal to noise ratio: > 56 dB (Composite and component)

Digital Video Input

Formats: 525/60 or 625/50 (D1-Component), NTSC or PAL

(D2-Composite)

Inputs: SDI (D1/D2 switchable): BNC (1), 75 Ω active through

Video Encoding

MPEG2 MP@ML (standard)

Bit-rate: 1.5-15 Mbps

Resolution(525/60): 720×480, 544×480, 480×480, 352×480, 352×240
Resolution(625/50): 720×576, 544×576, 480×576, 352×576, 352×288

MPEG2 4:2:2P@ML (with BDKP-E1003)

Bit-rate: 3.0-50 Mbps (All I mode: 10-50 Mbps)

Resolution(525/60): 720×512, 720×480, 544×480, 480×480, 352×480,

352×240

Resolution(625/50): 720×608, 720×576, 544×576, 480×576, 352×576,

352×288

Frame rate: 29.97, 25 Hz. VBI: VITC/UB, Tele-Text

Analog Audio Input

Number of channels: 4

Inputs: XLR (4), 10k or 600 Ω

Level: +4 dBu (+24 dBu max), 3/ 0/ +4 dBu switchable

Time code input: LTC(XLR x 1)

Digital Audio Input

Number of channels: 4 (Expandable to 8 with BDKP-E1002)

External AES/EBU inputs:

BNC (4), 75 Ω

Embedded AES/EBU input:

SDI Input

Audio Encoding
Sampling frequencies: 32, 44.1, & 48kHz.

Bit rates, MPEG Layer I: 32, 64, 96, 128, 160, 192, 224, 256, 288, 320, 352,

384, 416, & 448 kbps

Bit rates, MPEG Layer II: 32, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256,

320, & 384 kbps

Linear PCM audio: Yes (with BDX-D1000)

Output Transport stream:

: DVB-ASI/SDTI (TS) (BNC (1), switchable),

DVB-parallel (D-sub 25-pin)

Clock input: BNC (1)

Monitor: SDI(video, BNC × 1) and analog audio (XLR (2), L&R)





Control I/F

Maintenance port: Ethernet (10base-T), RS-232C

ISR

General

Dimensions (W/H/D): 482 × 132 × 424 mm (Approx.) (19 × 5 1/4 × 16 3/4 inches) Mass (Approx.): 14.5 kg (31 lb 15 oz)
Operating temperature: 5°C to 40°C (41°F to 104°F)

Power requirements: 120/240 V Power consumption: Max.130 W

BDX-M1000

MPEG Multiplexer Unit

•Bit stream multiplexing of 1-9 •DVB-ASI bit stream input •Bit stream multiplexed outputs: DVB-ASI and dedicated parallel. which can also be used for bit stream monitoring •External master clock input •Data/control Interface: Ethernet (10Base-T)

Accessories Supplied: Operation manual (1)

Installation manual (1) Rack mount metals (2)

Specifications:

Input

Number of input channels: 9

DVB-ASI (BNC (9)) Bit stream input:

VS or VBS (BNC (1), 75 Ω loop through) Reference video: LTC (XLR x 1) Time code:

8-pin mini DIŃ Tally input:

Output

DVB-ASI (BNCx2), Parallel (D-sub 25-pin), dedicated Multiplex output:

parallel for modulator (D-sub 25-pin)

Maximum output data rate:

190 Mbps

Control I/F

System control: Ethernet (10 Base-T) Control/Data interface: Ethernet (10base-T), RS-232C, RS-422

General

Dimensions (W/H/D): $482\times132\times424~\text{mm}$ (Approx.) (19 x 5 1/4 x 16 3/4 inches) Mass (Approx.): 15.3 kg (33 lb 12 oz) Operating temperature: 5°C to 40°C (41°F to 104°F)

Power requirements: 120/240 V Power consumption: Max.120 W





BDX-N1000

Network Interface Unit (Tentative)

•Bi-directional ATM network interface for MPEG2 transport stream •Supports traffic type of CBR MPEG Transport Data, 8ch Ethernet packet data using PVC •Supports various physical layer interfaces, including optical fiber •ATM adaptation layer supported is, AAL1 (including FEC) and AAL5 •Signaling capability is, UNI 3.1, UNI 4.0, Q2931 (option)

Accessories Supplied: Operation manual (1)

Installation manual (1) Rack mount metals (2)

Optional Network Adaptor boards:

BDKP-N1001, Multi Mode Optcal fiber BDKP-N1002, Single Mode Optcal fiber

BDKP-N1003, DS-3 BDKP-N1004, E3

Optional Signaling Software:

BZX-N1001, UNI3.1

BZX-N1002, UNI4.0 (Tentative) BZX-N1003, Q2931 (Tentative)

Specifications:

MPEG Transport Stream I/O

DVB-ASI (BNC (1)) Input: DVB-ASI (BNC (2)) Output

ATM I/O (Option)

Input: Optical Fiber (1) (Multi/single mode), BNC (1) (DS-3),

BNC (1) (E3)

Optical Fiber (1) (Multi/single mode), BNC (1) (DS-3), Output

BNC (1) (E3)

ATM PHY TC Sublayer: SDH/SONET STM-1/STS-3c (155 Mbps) SONET STS-1 (51.5 Mbps)

DS3 (44.736 Mbps) E3 (34.368 Mbps)

Control/Data interface Ethernet (10Base-T) and RS-232C





Alarm output: D-sub 9-pin (1) ATM adapter specifications

Traffic type: CBR MPEG transport data and

8 channel Ethernet Packet data using PVC AAL1 (incl. FEC) and AAL5

ATM Adaption layer: Signaling capability: UNI3.1, UNI4.0/Q2931 (Tentative)

System Control interface

Maintenance port: 10Base-T,RS-232C

General

Dimensions (W/H/D): 482 × 45 × 424 mm $(19 \times 1^{13}/16 \times 16^{3}/4 \text{ inches})$ (Approx.) 8 kg (17 lb 10 oz) Mass (Approx.): 5°C to 40°C (41°F to 104°F) Operating temperature:

Power requirements: 120/240 V Power consumption: Max.40 W

BZX-E1001

Encoding Controller Software (Ver.3.00)

(Software Product)

•Controls a single channel encoder system of BDX-E1000

•Video control functions: Encoder bit rate, resolution, material

•Audio control functions: encoder channel assignment, bit rate, compression mode, and audio monitor channel assignment •Private data selection •Software platform requires an Intel microprocessor PC with RS232C port

•Operating system: Windows 95

Specifications:

Version date: Ver. 3.00 Encoder controller: Single channel

Control of which Product:

BDX-E1000
Control function: Encoder bit rate

Video/Audio/Private Mode

Software platform: Intel PC
Operating system: Windows 95

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Tape Robotic

BVC-80/400A/1000A	
BFC-1	240
BAC-1101A	242
BKAC-1103	242
NWS-5000UA	242
BVBP-14	242
BVBR-10	242
DVS-V1616	
BVS-V1212	243
BVS-A1212	243
BKS-R1210	243
BKE-9600	
BKC-1601	
BKC-1612	244
IF-10	244

BVC-80/400A/1000A

Digital BETACAM/Betacam SP Multi-cassette System

- •Uses Digital BETACAM or Betacam SP VTRs •Five VTRs can be internally accommodated (Expansion to six VTRs is possible) •DVS-V1616: 16 × 16 serial digital video and audio matrix switcher •BVS-V1212: 12 × 12 video matrix switcher •BVS-A1212: 12 × 12 stereo audio matrix switcher
- Choice of cassette size and capacity
- BVC-80 provides 84 S/L-size Digital BETACAM/ Betacam cassette capacity (All direct access bins)
- BVC-400A provides 351 S-size and 28 S-size/L-size Digital BETACAM/Betacam cassette capacity (28 direct access bins)
- BVC-1000A provides 1014 S-size and 28 S-size/L-size Digital BETACAM/Betacam cassette capacity (28 direct access bins)
- •Direct access bins accomodate both L-size and S-size cassettes and allow insert/eject even during on-air operation •Equipped with cassette input and output ports for long term bins (except BVC-80) •High speed elevator mechanism

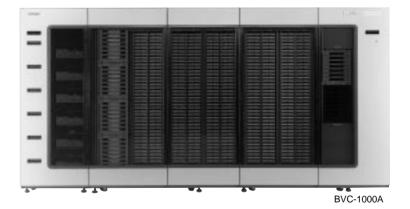




BVC-80



BVC-400A



17 Tape Robotic

ITEM		MODEL	BVC-1000A	BVC-400A	BVC-80				
Power requirements			AC 90 to 256V, 48 to 64Hz						
Power c	consumption			System: 3.0kVA					
Max. AC	line disturbance without			100ms					
system i	interruption			1001113					
Operatir	ng temperature			5°C to 35°C (41°F to 95°F)					
Humidity	у			25% to 80% RH non-condensing					
Mass	VTR console (W/O VTRs, switchers)	kg (lb)		350 (770)					
	Cassette console (W/O cassettes)	kg (lb)	1050 (2310)	550 (1210)	340 (750)				
	System kg (lb) (W/O VTRs, switchers, cassettes)		1400 (3080) 900 (1980)		690 (1520)				
,		nm (inch)	VTR	$\begin{array}{c c} & & & & & & & & & & \\ \hline & & & & & & & &$	VTR				
Cassette	e console								
	Bin capacity		1014 small cassettes	351 small cassettes	Direct access bins: 84				
Direct access bins			28 (holds both small		(holds both small and large				
	Input/Output ports		7/7 (small	<u>'</u>	cassettes)				
Cassettes			Sony BCT-D6/D12/D22/D32/D40, BCT-D34L/D64L/D94L/D124L (Digital BETACAM cassette) BCT-5G/10G/20G/30G, BCT-5GL/10GL/20GL/30GL/60GL/90GL (Betacam SP cassette/Oxide) BCT-5MA/10MA/20MA/30MA, BCT-5MLA/10MLA/20MLA/30MLA/60MLA/90MLA (Betacam SP cassette/Metal)						

INTERNAL VTRs Max. 6VTRs (optional)						
DVW-A510/A510P	Digital BETACAM Player with Betacam					
	SP playback compatibility					
DVW-510/510P	Digital BETACAM Player					
DVW-A500/A500P	Digital BETACAM Recorder with					
	Betacam SP playback compatibility					
DVW-500/500P	Digital BETACAM Recorder					
DVW-A30/30/A30P/30P	Betacam SX Player					
BVW-60/60P	Betacam SP Player					
BVW-65/65P	Betacam SP Player with DT					
BVW-70/70P	Betacam SP Recorder					
BVW-75/75P	Betacam SP Recorder with DT					
BVW-D75/D75PS	Betacam SP Recorder					
	wtih Serial Digital Interface					
Minimum preroll	0.3 seconds (from still mode)					
	0.9 seconds (from tension release)					
Audio stabilization	0.5 seconds (from still mode)					
EXTERNAL VTRs	Sony 9-pin equipped VTRs					

CONNECTIONS	
Reference signal	Black burst
Clock reference	SMPTE/EBU time code, XLR input
External event input	1 NTSC/PAL input
Output channels	A and B program out, Next event,
	Monitor channel
Character superimposer	1 channel (data for current and next event)
Remote control	1 RS-422 port: accepts either IF-10 or
	BVR-12/15, 1 parallel control port
Tally interface	1 parallel port for tally signal
	interconnection
External barcode reader	1 RS-422 port for connection to BVBR-10
BARCODE LABELS	
Code format	Interleaved 2 of 5
Label dimensions	17.5 x 139mm
APPLICATION CONTROLLER	
Disk drives	Hard disk (524MB)
	3.5-inch microfloppy drive (1)
Disk format	MS-DOS* compatible
Memory back up	Hard disk or uninterruptable power
	supply
Standard interface	ETHERNET (1)
	SCSI-2 (1)
	RS-232C (2)
	Centronics parallel (1)
Optional interface	RS-232C/422 serial interface board

BFC-1

Multi-cassette System

•Incorporate a wide range of Sony VTRs; Digital BETACAM, BETACAM SX, DVCAM, DVR Series D-2, BVW, PVW and UVW Series Betacam SP. SVO and SVP Series S-VHS recorders and players •Designed to be modular and reconfigurable with optional VTRs and cassette bin units to meet differing application requirements •Three alternative types of cassette bin units are available for the different format, which accepts any cassette size of each format •Equipped with RS-232C/422A selective serial communication port and parallel communication port which allows versatile connection between a built-in cart controller and an external application controller •Three optional GUIbased application software packages are available which operate on IBM PC/AT compatible computer with Windows NT installed •BZC-200 (Remote Control Software): Manual control of the entire Flexicart system, including internal VTRs and external video and audio switchers •BZC-210W (Playback Software): Automatic playback operation for applications such as sequential program transmission •BZC-220 (Record Software): Automatic recording operation for a live sports program and programs received from a key station on a network line •Can be integrated into FlexSys •BKFC-110 Interactive Status Reporting (ISR) Interface Board is also available for centralized status monitoring of an entire installation •An optional Bar Code Reader BKFC-200 is available for cassette identification

Supplied accessories: Power cable (1)

Operation manual (1) Maintenance manual (1) Installation manual (1)

Specifications

General

Power requirements: AC 100/120/220/230/240V, 50 to 60Hz

Power consumption: 600VA (without VTRs)
Operating temperature: 5°C to 35°C (41°F to 95°F)
Operating humidity: 25% to 80% (non-condensing)

Mass: 250 kg (551 lb 2.5 oz)

(without VTRs, cassette bin units and cassettes)

Dimensions: $600(W) \times 1980(H) \times 1090(D)mm$

(23⁵/₈ × 78 × 43 inches)

Connections

Remote control interface:

REMOTE-1 RS-422A D-SUB 9pin, REMOTE-2 RS-232C D-SUB 25pin

Parallel interface: D-SUB 50pin

Reference video in: BNC, Black burst or Composite video

Time code in: BNC

Optional system components

BKFC-8D: Bin Unit for D-2 cassettes

BKFC-10B: Bin Unit for Digital BETACAM/Betacam SP cassettes

BKFC-10S: Bin Unit for S-VHS cassettes

BKFC-52: VTR Rack Mount Kit for DVR-28/P28/18/

20/P20/10 Series

BKFC-53: VTR Rack Mount Kit for DVW-A500/500/A510/

510 Series, BVW-D75/75/70/D265/65/60 Series, PVW-2800/2650/2600 Series, UVW-1800/1600 Series, SVO-9600 Series, SVP-9000 Series RS-422A Serial Interface Expansion Board for

BKFC-100: RS-422A Serial Interface Expansion Board fo VTR (Two included with BFC-1 console,

additional board(s) required with more than two VTRs installed.)

BKFC-110: ISR Interface Board
BKFC-200: Bar Code Reader Unit
IBM PC/AT compatible PC with Windows NT

FLEXICART



Optional accessories

BVS-V1212: Analog Video Routing Switcher
BVS-A1212: Analog Audio Routing Switcher
DVS-V1616: D-1/D-2 Serial Digital Routing Switcher

Application Software Packages
BZC-200, Remote Control Software

BZC-220, Record Control Software

BZC-810, Transmission Management Software BZC-210W: Two Channel Playback Software

FLEXICART VCC Interface Protocol Manual

17 Tape Robotic

For NTCS models

Format	Applicable VTR	VTR	Cassette	Configuration (V	TR/Bin Unit ratio)	Cassette capacity		
1 Offilat	Applicable VTK	Mount Kit	Bin Unit	VTRs	Bin Units (4 U high)	S-cassette	M/L-cassette	
				1	7	56	28	
	DVR-28/18/P28 (8 Unit high)	BKFC-52	BKFC-8D	2	5	4	20	
				3	3	24	12	
D2				1	7	56	28	
	DVR-20/10/P20 (6 Unit high)	BKFC-52	BKFC-8D	2	6	48	24	
	DVK-20/10/F20 (0 Offictingfi)	DKI C-32	BKI C-0D	3	4	32	16	
				4	3	24	12	
Digital Betacam	DVW-A500/500/A510/510			1	7	70	35	
Betacam SX (play only)	DVW-A30/30	BKFC-53	BKFC-10B	2	6	60	30	
	BVW-D75/70/D265/65/60	BNFC-53		3	4	40	20	
	PVW-2800/2600/2650 (5 UNit high = 1 Unit*1)			4	3	30	15	
Betacam SP	UVW-1800/1600 (4 Unit high + 1 Unit*1)	BKFC-53	BKFC-10B	1	7	70	35	
Detacam of				2	6	60	30	
				3	5	50	25	
				4	4	40	20	
			BKFC-21DV plus BKFC-210*3	1	7	14	17	
	DSR-60/80*2			2	7	147		
DVCAM		BKFC-54		3	6	126		
DVCAIVI	(4 Unit high)	DKI C-34		4	5	105		
				5	4	84		
				6	3	63		
				1	7	7	0	
				2	7	70		
S-VHS	SVO-9600 SVP-9000	BKFC-53	BKFC-10S	3	6	60		
3-1113	(3 Unit high)	BKFC-53	BKFC-10S	4	5	5	0	
	(, ,			5	4	40		
				6	4	40		

For PAL models

Format	Applicable VTR VTR Cassette Configuration (VTR/B		TR/Bin Unit ratio)	,				
ronnat	Applicable VTR	Mount Kit	Bin Unit	VTRs	Bin Units (4 U high)	S-cassette	M/L-cassette	
				1	7	56	28	
	DVR-28P/18P (8 Unit high)	BKFC-52	BKFC-8D	2	5	4	20	
				3	3	24	12	
D2				1	7	56	28	
	DVR-20P/10P (6 Unit high)	BKFC-52	BKFC-8D	2	6	48	24	
	DVR-20F/TOF (6 OHIL HIGH)	DNFC-32	BKFC-0D	3	4	32	16	
				4	3	24	12	
Digital Betacam	DVW-A500P/500P/A510P/510P			1	7	70	35	
Betacam SX (play only)	DVW-A30P/30P	BKFC-53	BKFC-10B	2	6	60	30	
	BVW-D75PS/75P/70P/65P/60P	DKI C-55		3	4	40	20	
	PVW-2800P/2600P/2650P (5 UNit high = 1 Unit*1)			4	3	30	15	
Betacam SP		BKFC-53	BKFC-10B	1	7	70	35	
Detacam SF	UVW-1800P/1600P (4 Unit high + 1 Unit*1)			2	6	60	30	
				3	5	50	25	
				4	4	40	20	
			BKFC-21DV plus BKFC-210*3	1	7	14	47	
	DSR-60P/80P* ² (4 Unit high)			2	7	147		
DVCAM		BKFC-54		3	6	126		
DVCAIVI		DKI C-54		4	5	105		
			2.1.0 2.10	5	4	84		
				6	3	63		
				1	7	7	0	
	0.40 0000			2	7	70		
S-VHS	SVO-9620 SVP-9020	BKFC-53	BKFC-10S	3	6	60		
0-1110	(3 Unit high)	BKFC-53	BKFC-105	4	5	5	0	
	` ' '			5	4	40		
				6	4	40		

^{*1:} Space for air circulation
*2: Available for standard cassette only
*3: BKFC-210 DV Hand Kit— a robotics hand for handling DVCAM Standard cassette

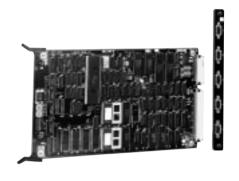
^{*1:} Space for air circulation
*2: Available for standard cassette only
*3: BKFC-210 DV Hand Kit— a robotics hand for handling DVCAM Standard cassette

BAC-1101A
Cart Controller for LMS





BKAC-11039-pin Remote Interface Board for BAC-1101/1100



NWS-5000UA Network Engineering Workstations (NEWS)



BVBP-14Barcode Printer for Betacam S-size/L-size Cassette



BVBR-10 Barcode Reader





17 Tape Robotic

DVS-V1616 (525/60, 625/50)

Serial Digital Video and Audio Matrix Switcher for Digital BETACAM, Betacam SX/DVCAM,

LMS/Betacart/Flexicart

For details, please refer to "Video and Audio Interfacing Guide Book"



BVS-V1212

Video Matrix Switcher for Betacam SP LMS/Betacart/

Flexicart

For details, please refer to "Video and Audio Interfacing Guide Book"



BVS-A1212

Audio Matrix Switcher for Betacam SP LMS/Betacart/Flexicart

For details, please refer to "Video and Audio Interfacing Guide Book"



BKS-R1210

Remote Control Panel for DVS-V1201/A1201, BVS-V1201/A1201 (5m, 16ft)

For details, please refer to "Video and Audio Interfacing Guide Book"



BKE-9600

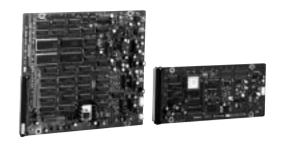
Intelligent Device Controller

For details, please refer to "Video and Audio Interfacing Guide Book"



BKC-1601

Title Character Generator Board



BKC-1612

Parallel/Serial Interface Board



IF-10

Parallel/Serial Interface Box



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Peripherals

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DSM-M1	
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BVR-D10	
BVR-D11	24
DFX-1201/1200P	24
DFX-2101	
BKDV-4224AD/4224DA	
DTR-3000	
BKDV-108/109	25
DAF-1500 SYSTEM	25
DDU-2100	25
PFA-D100	25
AMS-100	25

DSM-D1(NTSC/PAL)

SDDI Demultiplexer

•Provide digital program channels using elements of the existing communication infrastructure •High quality compression algorithm of MPEG2 4:2:2P@ML •Maintains broadcast picture quality •SDDI (Serial Digital Data Interface) interface with an optional board •Flexibility in the choice of video signal format: any two interface ports can be fitted as an option among SDDI, SDI, and analog composite (NTSC or PAL) input boards •Demultiplex incoming SDDI stream back into the two programs from transmission over several contribution links •Sophisticated control panel operation •High quality uncompressed digital audio •Compact design and light weight approx. 8kg

Supplied accessories: Operation manual (1)

Installation manual (1) AC power cord (1) Rack angle (2)

Optional interface boards: BKSM-R101 SDDI output board

BKSM-R102 Digital output board BKSM-R103/T103P Analog output board

RMM-30 Rack Mount Kit



General: Mass:

Approx. 8 kg (17 lb 10 oz) (including two BKSM-R102) $424(W)\times43.6(H)\times525(D)\text{ mm}$ Dimensions: $(16.34 \times 1.34 \times 20.34 \text{ inches})$

Power requirements: AC 100 V to 240 V, 50 Hz/60 Hz

08A-04A Current consumption:

+0°C to +40°C (+32°F to +104°F) Operating temperature: Storage temperature: -20°C to +60°C (-4°F to +140°F) Humidity: 10% to 90% (non condensing)





Input/Output

Serial video/audio input: SDDI (BNC) (1), clock rate 270MHz

Reference video output: Black burst (BNC) (1), 40 IRE, sync negative, 75Ω

Spare: D-sub 25-pin, female

DSM-M1(NTSC/PAL)

SDDI Multiplexer

•Provide digital program channels using elements of the existing communication infrastructure •High quality compression algorithm of MPEG2 4:2:2P@ML •Maintains broadcast picture quality •SDDI (Serial Digital Data Interface) interface with an optional board •Flexibility in the choice of video signal format: any two interface ports can be fitted as an option among SDDI, SDI, and analog composite (NTSC or PAL) input boards •Multiplex two programs simultaneously over an SDDI link for transmission over several contribution links •Sophisticated control panel operation •High quality uncompressed digital audio •Compact design and light weight approx. 8kg

Supplied accessories: Operation manual (1)

Installation manual (1) AC power cord (1) Rack angle (2)

Optional interface boards: BKSM-T101 SDDI input board

BKSM-T102 Digital input board BKSM-T103/T103P Analog input board

RMM-30 Rack Mount Kit

Specifications

General

Approx. 8 kg (17 lb 10 oz) Mass: (including two BKSM-T102) 424(W) × 43.6(H) × 525(D) mm Dimensions:

(16 3/4 x 1 3/4 x 20 3/4 inches) AC 100 V to 240 V, 50 Hz/60 Hz Power requirements:

Current consumption: 1.2A - 0.6A

 $+0^{\circ}$ C to $+40^{\circ}$ C ($+32^{\circ}$ F to $+104^{\circ}$ F) Operating temperature: Storage temperature: -20°C to +60°C (-4°F to +140°F) Humidity: 10% to 90% (non condensing)





Input/Output:

Serial video/audio output: SDDI (BNC) (1), clock rate 270MHz

Black burst (BNC) (1), 40 IRE, sync negative, 75Ω Reference video input:

Spare: D-sub 25-pin, female

BVX-D10 (NTSC, 525/60, PAL, 625/50)

Digital Color Corrector

•The BVX-D10 is designed to handle either 4:2:2 component digital, NTSC or PAL composite digital video depending on the optional board installed: BKX-101C. BKX-101, or BKX-101P. With the BKX-101C, operation in both 525/60 and 625/50 systems is possible.

BKX-101C: 4:2:2 component digital video I/O BKX-101: NTSC composite digital video I/O BKX-101P: PAL composite digital video I/O

•Both serial and parallel digital video inputs/outputs are available for each optional I/O board. (The input signal can be selected—serial or parallel.) •The BVX-D10 will operate on 13.5MHz for component digital input, 17.734MHz for PAL composite digital input, and 14.318MHz for NTSC composite digital input •Precise Gain, Black and Gamma corrections of R/G/B can be done individually using the BVR-D11 or BVR-D10 optional remote control units •In addition to R/G/B color correction, adjustments of Luminance Gain, Chroma Gain, Black Level, Hue and Output Gain are possible •When used with the optional remote control unit BVR-D11, it is possible to store and recall up to ninety-nine setting data in the BVX-D10's data memories •A maximum of four BVX-D10's can be controlled by one BVR-D11. (The BVR-D10 controls one BVX-D10.) •Interface with the BVE-9100 Sony editing controller allows each setting data of the BVX-D10 to be stored and recalled in and from the Edit Decision List (EDL) in the BVE-9100





Specifications

AC 100 V to 240 V, 50/60 Hz Power requirements:

Dimensions: BVX-D10: $424(W) \times 88(H) \times 490(D)$ mm

 $(16^3/4 \times 3^1/2 \times 19^3/8 \text{ inches})$ 424(W) × 44(H) × 155(D) mm BVR-D10:

 $(16^3/4 \times 1^3/4 \times 6^1/8 \text{ inches})$

BVR-D11: 424(W) × 44(H) × 150(D) mm

 $(16^{3/4} \times 1^{3/4} \times 6^{1/8} \text{ inches})$

BVX-D10: Approx. 8 kg (17 lb 10 oz) Mass: BVR-D10: Approx. 2 kg (4 lb 7 oz)

Approx. 5 kg (11 lb) BVR-D11:

50 W (including the optional BKX-101, Power consumption: BVX-D10:

BKX-101P or BKX-101C)

BVR-D10: BVR-D11:

Operating frequency: Component operation: Y=13.5 MHz

R-Y/B-Y=6.75 MHz

Composite operation:

17.734 MHz (PAL Composite digital) 14.318 MHz (NTSC Composite digital)

Component operation: Y=5.75 MHz Bandwidth: R-Y/B-Y=2.75 MHz

Y=6 0 MHz

Composite operation: R-Y/B-Y=1.3 MHz

Input/output: 10 bits/sample

K-factor (2T pulse): <1% >55 dB S/N ratio:

Controls

R/G/B gain: +3 dB R/G/B black: +3 dB R/G/B gamma: +15% Output gain: ±3 dB Y gain: ±3 dB Chrominance gain: ±3 dB ±15° Black level: +20 IRE Input

Component operation: Component serial (1)

(BNC with active through output)

Component parallel (D-sub 25-pin) (1)

Composite operation: Composite serial (1)

(BNC with active through output) Composite parallel (D-sub 25-pin) (1)

Output

Component operation: Component serial (BNC) (4)

Component parallel (D-sub 25-pin) (1)

Composite operation: Composite serial (BNC) (4)

Composite parallel (D-sub 25-pin) (1)

BVR-D10

Remote Control Unit for BVX-D10



BVR-D11

Remote Control Unit for BVX-D10





DFX-1201 (NTSC, 525/60)/1200P (PAL, 625/50)

Digital Rate Converter

•4:2:2 component digital video (525/60 or 625/50) sampled at Y=13.5MHz, R-Y/B-Y=6.75MHz is converted into NTSC/PAL composite digital video sampled at 14.318MHz/17.734MHz •Equipped with both parallel and serial digital I/O ports •Can handle four channels of digital audio signals embedded in a serial digital video •Two rack units high and 19-inch rack mountable

Specifications

Power consumption: 120 W (DFX-1201), 100 W (DFX-1200P)

Power requirements: AC 100 V to 120 V AC 220 V to 240 V selectable

Dimensions: $424(W) \times 88(H) \times 520(D)mm$ $(16^3/4 \times 3^1/2 \times 20^1/2 \text{ inches})$ Mass: DFX-1201: 12 kg (26 lb 7 oz)

DFX-1201: 12 kg (26 lb 7 oz) DFX-1200P: 13 kg (28 lb 11 oz)

DFX-1201

Digital video input: 4:2:2 Component Parallel format (1)

(D-sub 25-pin) 4:2:2 Component Serial (BNC) (1)

Reference in: Composite video (BNC)
Digital video output: 4 fsc NTSC Composite Parallel format (1)

(D-sub 25-pin)

4 fsc NTSC Composite Serial (BNC) (2)

Advanced reference output:

Sync and CF pulse

DFX-1200P

Digital video input: 4:2:2 Component Parallel (D-sub 25-pin) (1)

4:2:2 Component Serial (BNC) (1)

Reference in: Composite video (BNC)

Digital video output: 4 fsc PAL Composite Parallel (D-sub 25-pin) (1)

4 fsc PAL Composite Serial (BNC) (2)

Advanced reference output:

Sync and CF pulse





DFX-1201 Rear Panel

DFX-2101 (NTSC, 525/60)

Digital Rate Converter

•NTSC composite digital video sampled at 14.318MHz is converted into 4:2:2 component digital video sampled at Y=13.5MHz, R-Y/B-Y=6.75MHz •Adaptive filtering is used for Y/C separation of NTSC composite signal •Two rack units high and 19-inch rack mountable

Specifications

Dimensions:

Power consumption: 120 W

Power requirements: AC 100 V to 120 V

AC 220 V to 240 V selectable 424(W) \times 88(H) \times 520(D) mm (16 3 /₄ \times 3 1 /₂ \times 20 1 /₂ inches)

Mass: 12 kg (26 lb 7 oz)

Digital video input: 4 fsc NTSC Composite Parallel format (1)

(D-sub 25-pin)

4 fsc NTSC Composite Serial (BNC) (1)

Reference in: Composite video (BNC) or composite sync/color

frame pulse (BNC)

Digital video output: 4:2:2 Component Parallel format (1)

(D-sub 25-pin)

4:2:2 Component Serial (BNC) (2)

Advanced reference output:

Black burst (1)



BKDV-4224AD/4224DA (525/60, 625/50)

D-1 Signal Converter

- •In conjunction with two D-1 VTRs, a range of recording/playback system can be formed
- 4:2:2 picture plus key channel production (4:2:2:4 mode)
- Full band GBR plus key channel production $(4 \times 4 \text{ mode})$
- Doubled horizontal resolution of 525/60 or 625/50 signals (8:4:4 H mode)
- Progressive scan 525 or 625 (60 frames/sec or 50 frames/sec) system (8:4:4 V mode)
- •Regular video A/D or D/A conversion conforming to the CCIR -601 filter specifications is possible •One rack unit high and 19-inch rack mountable

Specifications

Power consumption: 55 W (Max.)

AC 100 V to 120 V, 50/60 Hz AC 220 V to 240 V, 50/60 Hz Power requirements: Dimensions: 424(W) × 44(H) × 550(D) mm

7 kg (15 lb 7 oz)

Y/KEY: 13.5 MHz, B-Y/R-Y: 6.75 MHz Sampling frequency: (4:2:2:4)

 (4×4) Y/KEY/B-Y/R-Y or G/B/R/KEY: 13.5 MHz (8:4:4) Y: 27 MHz, B-Y/R-Y: 13.5 MHz (4:2:2)Y: 13.5 MHz, B-Y/R-Y: 6.75 MHz

(4:2:2:4) Frequency response: Y/KEY: DC to 5.75 MHz (± 0.5 dB)/6 MHz

B-Y/R-Y: DC to 2.75 MHz (±0.5 dB)/

3 MHz (-3dB)

Y/KEY/B-Y/R-Y or G/B/R/KEY: DC to (4×4) 5.75 MHz (±0.5 dB)/6 MHz (-3 dB)

Y: DC to 11.5 MHz (±0.5 dB)/12 MHz (8:4:4)

(-3 dB)B-Y/R-Y: DC to 5.75 MHz (±0.5 dB)/

6 MHz (-3 dB)

(4:2:2)Y: DC to 5.75 MHz (±0.5 dB)/6 MHz

(-3 dB)

B-Y/R-Y: DC to 2.75 MHz (±0.5 dB)/

3 MHz (-3 dB)

S/N ratio

Remote:

(Analog output): 56 dB Linearity Within 2 0% K factor (2T pulse): Below 1.0% Channel delay Below +15 ns Serial Input/output: Bit rate: 270 Mb/sec

Transmission distance: Max. 200 m Analog video input: Y(G)/B-Y(B)/R-Y(R)/KEY/SYNC, BNC

(BKDV-4224AD only)

Digital video input: BNC: Digital Serial (270 Mb/sec.) BKDV-4224AD: VIDEO & KEY

BKDV-4224DA: SERIAL IN 1 & 2

Analog video output: Y(G)/B-Y(B)/R-Y(R)/KEY/SYNC, BNC

(BKDV-4224DA only)

Digital video output: BNC: Digital Serial (270 Mb/sec.) BKDV-4224AD: SERIAL OUT 1 & 2

BKDV-4224DA: VIDEO & KEY D-SUB 25-PIN: **VIDEO INDEX**

INFORMATION

*Note: The above shows the specifications of the BKDV-4224AD or BKDV-4224DA, which are identical.





BKDV-4224AD



BKDV-4224DA

DTR-3000 (NTSC/PAL)

Dynamic Motion Controller

•Provides speedy control of DT equipped VTRs in STILL, JOG, VARIABLE, and SHUTTLE modes •Five current cues can be entered and accessed for search to the desired event •Additional five memory cues are provided to store current cues •Each cue point is easily accessed using the cue scroll or memory cue scroll keys •Up to two VTRs can be controlled by one DTR-3000 •Up to four DTR-3000s can be interconnected for parallel operation, thus a maximum of eight VTRs can be controlled at the same time •Both dial and lever operations are available •Playback speed from –100% to 300% in 50 steps (normal speed=100%) •Preroll times can be set within the range of 0 sec. 00 frames to 9 sec. 29 (NTSC)/24 (PAL) frames

Specifications

Power consumption: 35 W

Power requirements: AC 100 V to 240 V, 50/60 Hz Dimensions: 212(W) \times 257(H) \times 271(D) mm (8 3 /8 \times 10 1 /8 \times 10 3 /4 inches)

Mass: 4.6 kg (10 lb 2 oz)

Input/output connectors

RS-232C: D-sub 25-pin
VTR-1: D-sub 9-pin, RS-422
VTR-2: D-sub 9-pin, RS-422
GP-IB: GP-IB 24-pin

TALLY: D-sub 9-pin, AC/DC 24 V VIDEO IN: BNC, 1.0Vp-p, 75 Ω MONITOR OUT: BNC, 1.0Vp-p, 75 Ω



BKDV-108 (NTSC)/109 (PAL)

Digital Video Controller

- •Up to four D-2 VTRs can be connected via RS-422 interface port
- •Precise control of video output parameters:
- Video level, Chrominance gain, Black level (Setup level), Hue (Burst/chroma phase), video phase, sync phase, SC phase
- •Input video gain can be controlled •Unity (fix) and Variable modes for each parameter •Video level and SC-H phase of the incoming video are displayed with LED bargraphs •Fix, Adjust, and Free modes are available for input CF mode •A total of 99 settings can be stored and retrieved

Specifications

Power consumption: 10 W

Power requirements: AC 100 V to 120 V \pm 10% (BKDV-108)

AC 220 V to 240 V ±10% (BKDV-109)

Dimensions: $424(W) \times 43.6(H) \times 110(D)$ mm

 $(16^{3/4} \times 1^{3/4} \times 4^{3/8} \text{ inches})^{-1}$

Mass: 2 kg (4 lb 6 oz)



DAF-1500 SYSTEM

Audio Converter Unit

• Holds up to eight of the following, easily installed, optional boards in any combination:

DABK-1511 A/D converter DABK-1512 D/A converter

DABK-1514 Sampling Rate Converter DABK-1515 Word Sync Distributor

• DABK-1513 ID Inserter option adds source/destination information to the AES/EBU output signals.

• 3-unit high, 19-inch EIA standard, rack mountable frame.

*Word clock and AES/EBU DI sync board fitted as standard, but this can be replaced by an optional DABK-1510 Video Sync board.

Supplied Accessories 19-inch rack mount adaptor

AC power cable

Operation and maintenance manuals

Optional Boards/Unit

DABK-1510 Video sync board DABK-1511 A/D converter board DABK-1512 D/A converter board DABK-1513 ID inserter board DABK-1514 Sampling rate conve

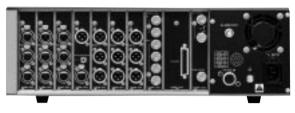
DABK-1514 Sampling rate converter board DABK-1515 Word sync distribution board DABK-1517 Back-up power supply unit

Specifications

General

Dimensions: $\begin{array}{ll} 424 (W) \times 133 (H) \times 350 (D) \text{ mm} \\ (16\ ^3/4 \times 5\ ^1/4 \times 13\ ^7/8 \text{ inches}) \\ \text{Mass:} & 11.5 \text{ kg } (25 \text{ lb 7 oz}) \text{ maximum} \\ \text{Power consumption:} & AC 150 \text{ VA maximum} \\ \text{Power requirements:} & AC 100 \text{ to } 240 \text{ V, } 50/60 \text{ Hz} \\ \end{array}$





Inputs/outputs

ANALOG IN (DABK-1511):

2ch, +4 dBu (+24 dBu max.), adjustable from –10 dBu to +8 dBu, 10 k Ω or 600 $\Omega,$ balanced XLR-3-31 type (2)

ANALOG OUT (DABK-1512):

2ch, +4 dBu(+24 dBu max.), adjustable range from –10 dBu to +8 dBu, less than 50 Ω , balanced XLR-3-32 type (2)

DIGITAL IN (DABK-1512):

2ch, AES/EBU, XLR-3-31 type (1)

DIGITAL OUT (DABK-1511):

 $\begin{array}{ccc} & 2 \text{ch, AES/EBU, XLR-3-32 type (1)} \\ \text{Word sync:} & TTL \ \text{compatible, 75 } \Omega \ \text{BNC, loop-through} \\ \text{AES/EBU sync:} & \text{XLR-3-31 type/XLR-3-32 type, buffered through} \\ \end{array}$

Reference video (DABK-1510):

Black burst/composite sync/composite video (525/59.94, 625/50, 525/60), BNC loop-through,

switchable 75 Ω termination

DDU-2100

Digital Audio Delay Unit

•Capable of delaying a maximum of 8 channels (4 inputs) of AES/EBU digital audio signals and SMPTE/EBU time code (LTC) simultaneously

•Delay time can be adjusted by field, ms, samples Field: 8.5 fields (0.1 field/step)

Ms: 170ms (2.0ms/step)

Sample: 8100 samples (100 samples/step)

•Accepts 48kHz, 44.1kHz, 44.056kHz and 32kHz sampling frequencies•One rack unit high and 19-inch rack mountable

Specifications

Dimensions:

Power consumption: 15 W

Power requirements: AC 100 V to 120 V ±10%

AC 220 V to 240 V $\pm 10\%$ selectable, 50/60 Hz

 $424(W) \times 44(H) \times 330(D)$ mm $(16^{3/4} \times 1^{3/4} \times 13 \text{ inches})$

 $\begin{array}{lll} \text{Mass:} & 3.5 \text{ kg (7 lb 11 oz)} \\ \text{Audio input:} & \text{AES/EBU} \times 4 (\text{XLR 3-pin}) \\ \text{Audio output:} & \text{AES/EBU} \times 4 (\text{XLR 3-pin}) \\ \text{LTC input:} & \text{SMPTE/EBU} \times 1 (\text{XLR 3-pin}) \\ \text{LTC output:} & \text{SMPTE/EBU} \times 1 (\text{XLR 3-pin}) \\ \end{array}$

Sampling frequency: 48 kHz/44.1 kHz/44.056 kHz/32 kHz selectable

Maximum delay range: 8.5 fields/170 ms/8100 samples





PFA-D100

Digital Audio Distribution Amplifier

- Conforming to the AES/EBU format with 48 kHz sampling frequency
- •Five selectable distribution:
- Four blocks of one stereo input × 6 outputs
- Two blocks of one stereo input × 12 outputs
- A block of one stereo input × 24 outputs
- Two blocks of one stereo input x 6 outputs and a block of one stereo input × 12 outputs
- A block of one stereo input × 18 outputs and a block of one stereo input × 6 outputs
- •Locking to video reference or AES/EBU sync signals
- •Operation on either NTSC or PAL standard video signals can be selected with an internal switch •Re-clocking digital audio signals using a reference video or AES/EBU sync signal •Optional back-up power supply unit, the BKPF-A100 is available for the event of the main power supply trouble •Dual AC inlets •2U height and 19-inch rack mountable

Supplied accessories: AC power cord (3)

Rack mount adaptor (1) 75 Ω termination Plug holder (1)

Optional accessory: BKPF-A100 Back-up power supply

Specifications

Approx. 18 W Power consumption:

Power requirements: AC 100 V to 120 V, 220 V to 240 V, 50/60 Hz Dimensions: Approx. $424(W) \times 88(H) \times 350(D) \text{ mm}$

 $(16^3/4 \times 3^1/2 \times 13^7/8 \text{ inches})$ Approx. 7.0 kg (15 lb 7 oz) Mass:





Digital input: AES/EBU format, XLR-3-31 type (4)

*One digital input signal selected with an internal switch is used as a reference audio signal

Digital output: AES/EBU format, XLR-3-32 type (24) AES/EBU format, XLR-3-31 type (1) Sync input:

Reference video input:

Analog video signal Black burst Composite sync

Composite video (525/59.94, 625/50 or 525/60)

BNC, loop-through



Audio Monitor Speaker

•Analog/digital input capability; inputs are configured with optional modules, the BKAM-101 (Analog), the BKAM-102 (AES/EBU), and BKAM-103 (SDI with embedded audio). Up to two modules are installed in the AMS-100.



The BKAM-101 and BKAM-103 are installed in the AMS-100.

Analog input (BKAM-101):

- •Male/female connector provided and also used as loop-through connector
- Selectable input level and impedance



Digital input (BKAM-102):

•XLR/BNC connectors provided



SDI input (BKAM-103):

- •Monitoring of audio signal embedded in SDI signal
- •Simultaneous multi-channel monitoring by cascade connection



•Input selection up to 32 channels (when two modules are installed) •Input selection using external equipment via a remote connector •Monitoring through headphones and external equipment •Level indication on the front panel LED VU meters •Magnetic shielding •Compact 1RU size, 19-inch rack-mountable unit •100 to 240 V AC operation with automatic switching

Supplied accessories: Operation manual (1)

Installation manual (1)

Rack mounting plate (factory-installed, 2)

Optional boards

BKAM-101 Analog Module BKAM-102 AES/EBU Module BKAM-103 SDI Module

Specifications

Inputs/Outputs

Analog Input: 2ch, +4 or 0 dBm (at $600~\Omega$ termination), +24 dBm (BKAM-101) max., balanced, $600~\Omega$ or $10~k\Omega$, XLR-3-31 (x2) or

XLR-3-32 (x2)

AES/EBU Input: 2ch, 110 Ω , balanced, XLR-3-31 (x1) or 75 Ω ,

(BKAM-102) unbalanced, BNC type (x1) SDI Input: 75Ω , unbalanced, BNC type (x1)

(BKAM-103) SMPTE259M

4:2:2 component: up to 16ch NTSC composite: up to 4ch

Parallel Remote Control Interface:

TTL level, D-sub 25P (x1)

Monitor Output (via Remote Connector): 2ch, +4 dBm, +24 dBm max., 600 Ω

Built-in Speaker Output: 2 W + 2 W

Headphone Output: -12 dBu at 8 Ω

SDI Throughout (BKAM-103):

75 Ω , unbalanced, BNC type (x1) (Buffered out)

Audio Characteristics (via Remote Connector)

Frequency Response: 20 Hz to 20 kHz ±1 dB

Crosstalk between Channels:

Less than -75 dB at 8 kHz

Signal-to-noise Ratio: More than 90 dB

Total Harmonic Distortion:

Less than 0.05% at reference level

General

Mass:

Power Requirements: AC 100 to 240 V, 50/60 Hz

Power Consumption: 25 V

Dimensions: 424 (W) x 44 (H) x 350 (D) mm (16 3/4 x 1 3/4 x 13 7/8 inches)

5 kg (11 lb)

19

Audio Equipment

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PCM-7040

2-channel Digital Audio Recorder

•Start ID level sync function •Internal clock for time data •Eject control via 37-pin parallel remote •Key reassignment for ease of use •ISR support •Sophisticated electronic editing capability •SMPTE/EBU time code recording/reading •Memory start for instant-start playback •Synchronized operation with video/audio equipment •Time code chase synchronization •4-head construction for RAW (Read-After-Write) and RMW (Read-Modify-Write) •Search/location capability •Variable speed playback in a range of ±12.5% •Controlled from Sony video editor BVE-9100/2000 •19-inch rack mountable with optional rack mount rail/adaptor RMM-30/31 (The RMM-30/31 requires the rack to be at least 26-inch in depth)

Supplied Accessories: AC power cord (1) Operation manual (1)

RM-D7200* Dual Remote Controller (*Not available in some areas.) Optional accessories:

RM-D7100 Remote Controller RMM-30 19-inch Rack Mount Rail RMM-31 19-inch Rack Mount Adaptor ECD-3C/10C Digital Audio Cable

PDP-15C/35C/50C/65C/95C/125C Digital Audio Tape

DT-60RA/90RA/120RA Digital Audio Tape

DT-10CLD Cleaning Tape



Tape Format/Performance

Rotary-head DAT recording Recording System:

Tape Speed: 8.15 mm/s

124 minutes (with Sony PDP-124) Recording Time: 2000 rpm (standard recording/playback) Scanner Rotation Speed:

Track Pitch: 13.6 µm

Head System: Helical scanning rotary 4-head system

Variable Speed Range: ±12.5% (playback)

FF and REW Time: Max. 60 s (with Sony PDP-124)

Shuttle Speed: x±1/5, x±1/2, x±1, x±3, x±8 or x±16 normal speed

Jog Speed: x±0 to x±1, x±3 normal speed

Digital Audio Signal

Number of Channels: 2 channels Sampling Frequency: 48 kHz, 44.1 kHz Quantization: 16-bit linear

Error Correction: Double-encoded Read Solomon Code

Modulation: 8 to 10 modulation 20 Hz to 20 kHz ±0.5 dB Frequency Response: S/N Ratio: More than 90 dB

Less than 0.05% at reference level T.H.D.:

Wow and Flutter: Below measurable limit

Crosstalk: Less than -80 dB (20 Hz to 20 kHz) Emphasis: 50 μs/15 μs, ON/OFF switchable

Phase Difference between Channels:

Within 10° (20 kHz)

Delay Time: Approx. 135 ms (RAW mode)

Inputs/Outputs

+4 dBu (+24 dBu max.), 10 k or 600 Ω , balanced, Analog Inputs:

XI R-3-31 type (x 2)

Analog Outputs: +4 dBu (+24 dBu max.), less than 50 Ω , balanced,

XLR-3-32 type (x 2)

Digital Inputs: AES/EBU (with transformer), 110 Ω , XLR-3-31 type AES/EBU (with transformer), 20 Ω , XLR-3-32 type **Digital Outputs** IEC461 (SMPTE/EBU), 0.5 to 10 Vp-p (10 $k\Omega$), Time Code Inputs:

XLR-3-31 type

IEC461 (SMPTE/EBU), 2.4 Vp-p, XLR-3-32 type Time Code Outputs: TTL compatible, 75 Ω , unbalanced, BNC type Word Sync Inputs: Word Sync Outputs: TTL compatible, low impedance, unbalanced,

BNC type

NTSC/PAL/SECAM or 50 Hz 60 Hz square wave, Video Sync Inputs:

0.3 to 4 Vp-p, $75\Omega,$ unbalanced, BNC type

Parallel Remote: TTL compatible, D-sub 37-pin, TTL compatible,

DIN 8-pin

Serial Remote: RS-422, D-sub 9-pin RS-232C, D-sub 25-pin Computer I/F:

Monitor Outputs: -10 dBu, at less than 150 Ω, RCA pin jack (x 2)

Headphone Outputs: -26 dBu at reference level (8 Ω load),

stereo phone jack





General

424 (W) × 132 (H) × 360 (D) mm Dimensions: 16 3/4 x 5 1/4 x 14 1/4 inches

10 kg (21 lb 1 oz)

AC 120 V ±10%, 60 Hz, 230 V +6/-10%, 50/60 Hz 38 W at AC 120 V 0.3 A at AC 230 V Power Requirements:

Power Consumption:

Mass:

* 0 dBu = 0 775 V

PCM-R700/R500

2-Channel Digital Audio Recorder

•High-reliability 4 D.D. mechanical transport mechanism with 4 direct drive motors for a stable tape run •Equipped with auto head cleaning for improved sound quality •4-head construction for confidence monitoring (PCM-R700) •Easy system operation with Shuttle and Jog dial •Shuttle for easy fast forward/rewind and half speed search •Jog dial for convenient AMS/Program Number •Setup menu for preference section- set ID6, level sync threshold, date, etc •SBM recording function achieving an S/N ratio equivalent to that of a 20-bit system •Built-in DIN 8-pin parallel remote connector and supplied wireless remote commander (RM-D757) •R-core transformer for reduced leakage flux •Independent Channel 1/ Channel 2 recording level volume controls for eliminating crosstalk •Wide range of audio interface options

Supplied Accessories: Wireless remote commander RM-D757 (1)

AC power cord (1) Screws (M5 × 12) (4) Decorative washers (4) Operation manual (1) RM-D750 Remote Controller

Optional Accessory: RM-D750 Rem



System: Rotary head DAT recording
Tape: Digital audio tape
Modulation: 8 to 10 Modulation
Digital Audio Channel: 2 channels, stereo
Sampling Frequency: 48 kHz, 44.1 kHz, 32 kHz

Quantization: Standard: 16-bit linear Long-play: 12-bit non-linear

Error Correction: Double-encoded Reed Solomon Code

Drum Rotation: Standard: 2,000 rpm Long-play: 1,000 rpm

Inputs/Outputs

Analog IN (Balanced) XLR-3, Female Reference level: +4 dBu to -12 dBu Analog IN (Unbalanced): RCA Phono, -12 dBu Analog OUT (Balanced): XLR-3, Male +4 dBu to -12 dBu Reference level: Analog OUT (Unbalanced): RCA Phono, -12 dBu Digital IN (AES/EBU): XLR-3, Female Digital OUT (AES/EBU): XLR-3, Male Digital IN (Coaxial): RCA Phono Digital OUT (Coaxial): RCA Phono

Remote Interface

REMOTE (8-pin): DIN connector (Parallel)

Optional Remote Commander IN:

Mini plug (Serial)

General

Mass:

Power Requirements: AC 120 V, 60 Hz (U.S.A. and Canada) AC 220 to 230 V, 50/60 Hz (Europe)

Power Consumption: 34 W

Dimensions: 482 (W) \times 145 (H) \times 355 (D) mm

(19 × 5 ¾ × 13 ½ inches) (R500) 7.2 kg (15 lb 14 oz) (R700) 7.3 kg (16 lb 2 oz)



PCM-R700



PCM-R500



PCM-R700



PCM-R500

PCM-R300

2-Channel Digital Audio Recorder

•SBM recording function achieving an S/N ratio equivalent to that of a 20-bit system •Start ID, End ID, Skip ID, control on the front panel •Setup menu for preference section - set ID6 (SCMS), level sync threshold •Error rate display selectable in display mode •Coaxial and optical digital interface •A/D and D/A monitoring modes •Recording and playback in Long play mode •Supplied rack mount adaptor for rack mounting

Supplied Accessories: Wireless remote commander RM-D757 (1)

AC power cord (1) Screws (M5 x 12) (4) Decorative washers (4) Operation manual (1) Rack mount adaptors (2)



Digital Audio Signal Format

System: Rotary head DAT recording Digital audio tape Tape: Modulation: 8 to 10 Modulation Digital Audio Channel: 2 channels, stereo Sampling Frequency: Quantization: Standard: 48 kHz, 44.1 kHz, 32 kHz

16-bit linear 12-bit non-linear Long-play:

Double-encoded Reed Solomon Code Error Correction:

Drum Rotation: Standard: 2,000 rpm

1,000 rpm Long-play:

Inputs/Outputs

RCA Phono, -12 dBu Analog I/O (Unbalanced): Optical jack Coaxial (RCA Phono) Digital I/O:

General

Power Requirements: AC 120 V, 60 Hz (U.S.A. and Canada)

AC 220 to 230 V, 50/60 Hz (Europe)

Power Consumption:

Dimensions: 432 (W) × 122 (H) × 325 (D) mm

(17 1/8 × 4 7/8 × 12 7/8 inches)

Mass: 5.0 kg (11 lb)





RM-D7200*

Dual Remote Controller for PCM-7040

•Provides remote control of two recorder transports

*Not available in some areas.



RM-D7100

Remote Controller

•Provides remote control of recorder transport functions of PCM-7040 via 37-pin parallel interface



RM-D750

Remote Controller for PCM-R700/R500



19-2 CD Players

CDP-3100/CDS-3100

CD Player System

•Front loading and highly compact CD player •Two units can be mounted in a 19-inch rack •Fully featured remote control, including jog dial for comprehensive control in on air and production applications •AES/EBU digital and balanced XLR analog outputs •Variable speed playback in a range of ±12.5% in 0.1% steps

Supplied Accessories: <CDP-3100 CD Player>

AC power cord (1) Operation manual (1)

<CDS-3100 Remote Controller> Connecting cord (2 m, 1) Operation manual (1)

Optional Accessories: DABK-3101 Memory Board DABK-3102 Interface Board

Specifications (CDP-3100)

Number of Channels: 2 channels (stereo)

Non-contact optical system using semiconductor Readout System:

laser pick-up

GaAlAs double hetero junction diode with 780 m Laser:

wavelength

Rotational Speed: Between approx. 200 rpm (outer circumference)

and 500 rpm (inner circumference) Sony super strategy cross Interleave Reed

Error Correction: Solomon Code (CIRC)

18-bit 8 times oversampling

D/A Conversion: 20 Hz to 20,000 Hz +0.5 dB/-1.0 dB Frequency Response:

Harmonic Distortion: Less than 0.01% Wow and Flutter: Below measurable limit Signal-to-noise Ratio: More than 92 dB Crosstalk Less than -80 dB at 20 kHz

Variable Speed Range: ± 12.5%

LINE OUT: Balanced, XLR-3-32 type (x 2), nominal +4 dBu

(600 Ω), maximum +19 dBu (600 Ω) MONITOR OUT: Unbalanced (x 2), nominal -10 dBu (47 kΩ)

maximum +5 dBu (47 Ω) AES/EBU, XLR-3-32 (x 1)

DIGITAL OUT: **HEADPHONE OUT:** Maximum $0 \text{ dBu } (32 \Omega)$

DIN 8-pin for fader start control, 10-pin for Remote Control I/F:

CDS-3100

AC 100, 120, 220 to 230, 240 V, 50/60 Hz Power Requirements:

Power Consumption:

212 (W) × 118 (H) × 408 (D) mm Dimensions: $(8 \frac{1}{3} \times 4 \frac{3}{4} \times 16 \frac{1}{8} \text{ inches})$

Mass: 6.5 kg (14 lb 5 oz)



19-2 CD Players

CDP-D500

CD Plaver

•Jog Shuttle Dial for CD frame accurate cueing •CD TEXT format compatibility for various CD TEXT information (Disc title. Track title, etc) to be read out via RS-232C port •Last cue memory function can be utilized by Cue/stdby button •Built-in DIN 8-pin remote control connector for fader start/stop from a mixing console •Built-in Word sync input with wide lock range (44.1 kHz ±12.5%) •Index cueing capability •Variable speed playback (±12.5% in 0.1% steps) •Auto cue playback for rapid start from a point where modulation is detected (signal detection level is adjustable) on disc •Adjustable (1 to 9 seconds) Auto fade on the front panel •Direct track access on the front panel •Built-in digital outputs conforming to AES/EBU and Unbalanced (IEC-958) formats •Accommodates both 8 cm (3-inch) and 12 cm (5inch) compact discs

Supplied Accessories: Wireless remote commander RM-D500 (1)

> AC power cord (1) Screws (M5 x 12) (4) Decorative washers (4)

Specifications

Frequency Response: 5 Hz to 20 000 Hz

Signal-to-noise Ratio: More than 100 dB (20,000 Hz LPF IHF-A

Weighted)

Dynamic Range: More than 98 dB

T.H.D.: Less than 0.004% (at 1 kHz, 0 dB 20 kHz LPF) CH Separation: More than 100 dB (at 1 kHz to 20 kHz LPF)

Analog Output:

XLR-3

Output Impedance: 100Ω Max. Output Level: +24 dBu Load Impedance: 10 k Ω

RCA Phono

Output Impedance: 200Ω Max. Output Level: +9 dBu Load Impedance: 10 k Ω H.P.(RCA Phone) Output Impedance: 150 Ω Max. Output Level: 15 mV Load Impedance: 32Ω

Digital Output: AES/EBU (XLR-3)

Output Impedance: 35 Ω Output Level: Adaptable Load Impedance: 110 Ω

IEC-958 (RCA Phono)

Output Impedance: 75Ω Output Level: 0.5 p-p Adaptable Load Impedance: 75Ω

Word Sync Input:

Mass:

22 k Ω /75 Ω Switchable (BNC) Input Impedance:

Input Level: 2 Vp-p (TTL)

44.1 kHz+12.5% (38.59 kHz to 49.6 kHz) Lock Range:

Serial RS-232C (D-sub 9-pin) Dimensions:

482 (W) × 145 (H) × 335 (D) mm

 $(19 \times 7 \% \times 14 \% \text{ inches})$ 7.1 kg (15 lb 10 oz)

Remote Interface: Parallel DIN 8-pin (2 modes)





19-3 Audio Mixers and Console

OXF-R3

Digital Mixing Console

- •Fully digital audio console for multitrack music and post production
- 120 inputs for mix down
- Configurable I/O system
- Exemplary processing quality
- 32/64-bit fixed point internal processing
- 24-bit digital I/O
- High quality converter technology
- Compact control surface
- Twin left and right channels sections either side of a central control area
- 65 high reliability linear motor faders
- Large comprehensive assignable channel control panel
- Seven large color TFT display screens
- Unique knob and switch status displays
- Comprehensive audio processing
- 5 band fully parametric EQ per channel with GUI
- Comprehensive compressor/limiter/expander/gate dynamics per channel with GUI
- 16 aux sends
- 48 track multitrack routing
- 8 stereo sub-groups
- •Surround sound processing
- Supports LCRS, 5.1 and SDDS
- •Fully integrated Session Management
- Dynamic and static automation
- Machine control of up to 4 machines
- Management for projects, titles, mixes, snapshots, cues and notes
- Simple installation
- Remote I/O racks
- Central processor rack
- Direct interface to DASH multitrack via MADI
- Control surface options
- 24C24 (L & R channels sections and central control)
- 24C0 (L channels section and central control)

Specifications

Power Requirements: AC 100 to 240 V, 50/60 Hz

Power Consumption:

Control surface 1 kW Processor 750 W I/O unit 240 W

Dimensions (W \times H \times D)

Control surface

24C24 (OXF-CP3048)

, 2516 × 1046 × 1216 mm

 $(99 \% \times 41 \% \times 47 \% \text{ inches})$

24C0 (OXF-CP3024) 1620 × 1046 × 1216 mm

(63 % × 41 ¼ × 47 % inches) Processor 482 × 674 × 604 mm

 $(19 \times 26 \frac{5}{8} \times 23 \frac{7}{8} \text{ inches})$

I/O unit 482 × 334 × 495 mm

(19 × 13 1/4 × 19 1/2 inches)

Producer's desk* 576 × 860 × 1192 mm

(22 ³/₄ × 33 ⁷/₈ × 47 inches) 400 × 1074 × 400 mm Speaker stand

 $(15 \frac{3}{4} \times 42 \frac{3}{8} \times 15 \frac{3}{4} \text{ inches})$

Mass:

Control surface

24C24 (OXF-CP3048)

382 kg (842 lb 3 oz) w/stand 24C0 (OXF-CP3024) 221 kg (487 lb 4 oz) w/stand

Processor 60 kg (132 lb 4 oz) I/O unit 25 kg (55 lb 2 oz) Producer's desk* 55 kg (121 lb 4 oz) Speaker stand* 11 kg (24 lb 4 oz)

*Producer's desk and speaker stand are optional. Both are sold in pairs (L/R) and the above dimensions and mass are for one of each pair.



System Configuration Model

OXF-R3 DMSK-R3096 DMSK-R3001 OXF-CP3048 OXF-CP3024 OXF-SP3000 OXF-IO3000 DMBK-R3001 DMBK-R3002 DMBK-R3003 DMBK-R3004 DMBK-R3005 DMBK-R3006 DMBK-R3008 DMBK-R3009 DMBK-R3010 GPI Control Board DMBK-R3011

DMBK-R3012

Description

Digital Audio Mixing Console Digital Console Software GML EQ/DYN Emulation Software Control Panel (24C24)

Control Panel (24C0) SP Rack

I/O Rack Mic/Line A/D Converter Monitor D/A Converter Line A/D Converter Line D/A Converter SP Board SP Link Board AES/EBU D I/O Board Time Code Board

Producer's Desk Speaker Stand

19-3 Audio Mixers and Console

DMX-B4008A/B4016

Digital Audio Mixer

- •Full, 32-bit digital processing •24-bit output signal resolution •Sampling frequency selectable to 44.056 kHz, 44.1 kHz or 48 kHz •Input routing switcher for 30 AES/EBU inputs to 8
- •Flexible output configuration
- 2-channel Program output
- Eight mono or four stereo assignable mix outputs
- •Snapshot automation, with built-in 3.5-inch disk drive
- •Operator-friendly touch screen for assignable functions
- •Console functions can be set at three different access levels to match their availability to the operator's skills
- •Comprehensive dynamics

Optional Accessories:

- Limitter/compressor on Program and Mix outputs
- •3-band EQ and high/low-cut filters on each input channel
- •Phase inversion •Two digital insert sends/returns, assignable to any channel •Fader and button start/stop function linked to input routing switcher •Self diagnostic function •Back-up power supply options



Control cable (10 m): control panel/processor rack

Control cable (1 m): control panel/meter unit (1) Audio cable (10 m): control panel/processor rack (1) BNC cable (10 m); control panel/processor rack (1) XLR connecting cable (1 m): control panel/meter unit (1)
Operation and maintenance manual (1)

Meter housing installation kit (1) Video reference terminator (1) DMBK-4001 Machine Controller

DMBK-4002 Mixer Stand DMBK-4003 VU Meter Panel

DMBK-4004 Blank Frame DMBK-4005 Table Kit for DMX-B4008A DMBK-4006 Table Kit for DMX-B4016 DMBK-4008 Back-up Power Supply Unit for

DMX-B4000 Series Processor Unit DMBK-4009 Back-up Power Supply Unit for DMX-B4000 Series Control Panel DMBK-4010 Input Extension Kit for DMX-B4016

DMBK-4011 Group Extension Kit for DMX-B4000

Series

DMBK-4012 20-bit A/D Microphone/Line Input

Module

DMBK-4013 Input Extension Kit for DMX-B4008A





19-3 Audio Mixers and Console

Specifications

	DMX-B4008A	DMX-B4016
Inputs	DIGITAL IN (AES MONITOR IN (AE MONITOR IN (AE INSERTION RETURN ID/TB (AES/E SURROUND M TALK BAG INTERCO VIDEO S WORD S D-I S MIC/LINE (up to 8-	S/EBU, 5 stereo) (AES/EBU, 2 stereo) (AES/EBU, 2 stereo) BU, 1 stereo) ONITOR (4-ch) CK (1-ch) MM (2-ch) SYNC IN YNC
Input Connectors DIGITAL IN MIC/LINE INSERTION MONITOR SURROUND TALK BACK INTERCOM VIDEO SYNC WORD SYNC D-I SYNC	XLR-3-3 XLR-3-3 XLR-3-3-3 XLR-3-3 D-sub D-sub BN BN XLR-3-3	31 type 31 type 31 type 31 type 50-pin 50-pin IC
Remote I/F GPI Serial Remote SCENE MUTE FADER	D-sub 50-pin, D-sub D-sub D-sub D-sub	9-pin 15-pin 50-pin
Sampling Frequency	44.056 kHz, 44	.1 kHz, 48 kHz
Frequency Response	20 Hz to 20 kHz	+0.2 dB/-1.0 dB
Harmonic Distortion	Less that	an 0.1%
Crosstalk	More than 60 dB	(20 Hz to 20 kHz)
Dynamic Range	More that	n 100 dB
Built-in Oscilator	1 k	Hz
Equalizer High Frequency Mid Frequency Low Frequency	1 kHz to 16 kHz, ±15 dE 220 Hz to 3.3 kHz, ±15 21 Hz to 330 Hz, ±15 dE	dB, Q=2 fixed peaking
Filter Low Cut Filter	120 Hz, 1	
High Cut Filter	8 kHz, 1:	
Metering	101-segment LED ba	· · · ·
Outputs	AÜX SEND (AES PFL (AES/EE INSERTION (AES MIX (AES/EBU 4 stereo or 8 m DUBBING (AE MAIN MON ALT MONI' SURROUND MOI STUDIO MOI STUDIO HEADI TALK BACK VIDEO SYNC OL WORD SYNC OL	BU, 1 stereo) S/EBU, 2 stereo) Iono, 8 stereo w/DMBK-4011) ES/EBU, 8-ch) ITOR (2-ch) FOR (2-ch) NITOR (C,S 2-ch) NITOR (2-ch) PHONES (2-ch) (1-ch x 3) JT (loop-through) JT (loop-through)
Output Connectors PGM OUT AUX SEND PFL INSERTION RETURI MIX MAIN MONITOR ALT MONITOR SURROUND MONITOR STUDIO MONITOR STUDIO HEADPHONE TALK BACK VIDEO SYNC WORD SYNC D-I SYNC	XLR-3-3 XLR-3-3 XLR-3-3 XLR-3-3 S Phone XLR-3-3 BN BN XLR-3-3	32 type 32 type 32 type 32 type 32 type 32 type 32 type 32 type 32 type 5 type 5 type 6 type 1C 1C 32 type
Power Requirements	AC 100/120/220	
Power Consumption	Controller: 170 W	Controller: 210 W
Dimensions (W x H x D)	Processor: 220 W Controller: 682 x 330 x 710 mm (26 ⁷ / ₈ x 13 x 28 inches) Processor: 424 x 310 x 500 mm (16 ³ / ₄ x 12 ¹ / ₄ x 19 ³ / ₄ inches)F	Processor: 220 W Controller: 990 x 330 x 710 mm (39 x 13 x 28 inches) Processor: 500 mm (16 ³ / ₄ x 12 ¹ / ₄ x 19 ³ / ₄ inches)
Mass	Controller: 50 kg (110 lb 4 oz) Processor: 13.5 kg (29 lb 12 oz)	Controller: 72 kg (158 lb 12 oz) Processor: 28 kg (61 lb 12 oz)

19-4 Audio-Follow-Video Editing Mixers

DMX-E3000

16-Channel Digital Audio Console

•Fully digital audio mixer designed for DVTR based video post production •32 into four configuration with additional 32 x 16 input router •Control surface and signal processing matches the style of video switchers •AES/EBU I/O ports. direct connection to DVTRs and other digital audio equipment •Video style monitoring with four internal preview buses and analog outputs via 20-bit D/A converters •Optional 3-band EQ, high-cut filter and low-cut/notch selectable filter •Phase inversion and programmable audio deley (0 to 9.9 frames in 0.1 frame steps) •Internal MS (Middle-side) decoder •Pan control and trimming input signal level •Editor, auto and manual crossfade modes •Fader learn function •Assignable digital insertion •Serial video editor interface (Sony serial and ESAM II extended) •Parallel interface for GPIs and remote control •Snapshot automation with 99 audio registers •Supports 48 kHz (DVTR audio)/47.952 kHz (HDVS transfer), 44.1 kHz (CD) sample rates •Video, word, D-I sync inputs and Word sync output

Supplied Accessories: AC power cord (2)

Connecting cable (control panel to processor unit),

30 m (1)

Connecting cable (contorl panel to meter bridge), 3

m (1)

Rack mount kit for controller/meter unit (1)

Meter housing installation kit (1)

75 Ω terminator (1)

Operation and maintenance manuals (1)

Optional Accessories: DMBK-3000 Equalizer/filter Unit
DMBK-3010 Remote Control Unit





Rear Panel (Control Panel)



Rear Panel (Processor)

19-4 Audio-Follow-Video Editing Mixers

DMX-E2000

Digital Audio Mixer

•Fully digital audio console for video editing system

- •20 digital inputs; 16 channels inputs and 4 AUX inputs
- •Serial video edit controller interface (ESAM II Extended)
- •Channel status display •Sampling rate converter for AUX input channels •Fader learn function •Pan/Balance control
- •3-band EQ and high-pass/Notch selectable filter •Phase inversion and programmable delay (0 to 5.0 frames)
- •Supports 48 kHz (DVTR audio), 44.1 kHz sampling rate
- •Snapshot automation with 99 audio registers •All-in-one unit and 19-inch width

Supplied Accessories: AC power cord (1)

Rack mount bracket (1)
Video reference terminator (1)
Operation and maintenance manual (1)





19-4 Audio-Follow-Video Editing Mixers

Specifications

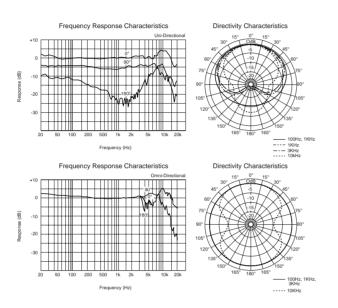
		DMX-E3000	DMX-E2000
Inputs		DIGITAL IN (AES/EBU, 32-ch) INSERTION (AES/EBU, 2-ch) VIDEO SYNC IN DI SYNC IN WORD SYNC IN REMOTE IN	DIGITAL IN (AES/EBU, 16 ch) AUX IN (AES/EBU, 4-ch or IEC-958, 4-ch) VIDEO SYNC IN WORD SYNC IN REMOTE IN
Input Connectors	DIGITAL IN MIC LINE MIC/LINE RETURN PHONO SUB MONITOR AUX TB REFERENCE VIDEO IN	XLR-3-31 type	XLR-3-31 type — — — — — — — — XLR-3-31 type/Phono type — BNC
	WORD SYNC IN REMOTE IN	BNC D-sub 9-pin, serial (Sony 9-pin) D-sub 50-pin, parallel	BNC D-sub 9-pin serial (ESAM II Extended) D-sub 25-pin parallel, D-sub 25-pin (RS-232C)
Sampling Frequency	•	48 kHz, 47.952 kHz, 44.1 kHz	44.1 kHz, 48 kHz
Frequency Response	Э	20 Hz to 20 kHz +0.2	dB/-0.5 dB at 1 kHz
Harmonic Distortion		Less than	า 0.02%
Equivalent Input Nois	se (150 Ω terminated)	_	_
Residual Noise		_	_
Crosstalk		Less than	n -90 dB
Max. Overall Gain			_
Built-in Oscilator		1 kHz	400 Hz/1 kHz/8 kHz/12 kHz variable
Emphasis			_
Equalizer	High Frequency Mid Frequency Mid-low Frequency Low Frequency	w/DMBK-3000 1 kHz to 16 kHz, ±15 dB, Q=0.7, shelving 200 Hz to 3.2 kHz, ±15 dB, Q=0.7 — 20 Hz to 320 Hz, ±15 dB, Q=0.7, shelving	1 kHz to 16 kHz, ±15 dB, shelving 200 Hz to 3.2 kHz, ±15 dB, Q=0.7/1.4, peaking — 20 Hz to 320 Hz, ±15 dB, shelving
Filters	Low Cut Filter High Cut Filter	21 Hz to 330 Hz (at -3 dB), 12 dB/oct 1 kHz to 16 kHz (at -3 dB), 12 dB/oct	20 Hz to 330 Hz, 12 dB/oct —
	Notch Filter	101	50/60/100/120/150/180 Hz
Metering Outputs		101-segment LED bar DIGITAL OUT (AES/EBU, 8 x 4 channels) PREVIEW (Digital) (AES/EBU, 4 channels) PREVIEW (Analog) (4 channels) INSERTION OUT (AES/EBU,2 channels) WORD SYNC OUT (loop-threugh) VIDEO SYNC OUT (loop-through)	graphs w/peak hold DIGITLAL OUT (AES/EBU, 4-ch x 4) AUX SEND (AES/EBU, 2-ch) MONITOR OUT (Analog, 2-ch) TB OUT (Analog, 1-ch) VIDEO SYNC OUT (loop-through) WORD SYNC OUT (loop-through)
Output Connectors	DIGITAL OUT PREVIEW OUT LINE GROUP AUX MONITOR PHONE TB PFL VIDEO SYNC WORD SYNC	XLR-3-32 type XLR-3-32 type — — — — — — — — — — — — — — — — — — —	XLR-3-32 type XLR-3-32 type ————————————————————————————————————
Power Requirements		AC 100/120/220/	240 V, 50/60 Hz
Power Consumption		Controller/meter unit: 30 W, Processor unit: 50 W	50 W
Dimensions (W x H x	(D)	Controller: 424 x 119.3 x 398.8 mm (16 ³/4 x 4 ³/4 x 15 ³/4 inches) Processor: 424 x 177 x 450 mm (16 ³/4 x 7 x 17 ³/4 inches) Meter unit: 424 x 132.4 x 40 mm (16 ³/4 x 5 ¹/4 x 1 ⁵/8 inches)	424 x 130 x 400 mm (16 ³ / ₄ x 5 ¹ / ₈ x 15 ³ / ₄ inches)
Mass		Controller: 13 kg (28 lb 10 oz) Processor: 10 kg (22 lb) Meter unit: 1 kg (2 lb 3 oz)	15 kg (33 lb 1 oz)

C-800G

Vacuum Tube Condenser Microphone

•Designed for the highest possible sound reproduction quality •Suitable for vocal recording in studios and film post-production houses •High sensitivity of -32 dB/Pa •Low noise and low distortion due to built-in cooling system •Large diaphragm capsule •Selectable directivity — uni-directional or omni-directional

Optional accessory: AC-MC800G AC Power Supply Unit



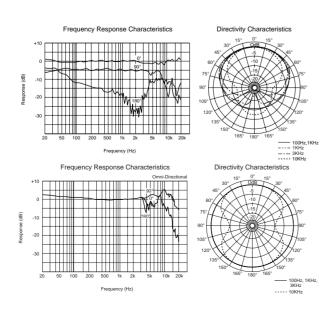


C-800

Vacuum Tube Condenser Microphone

•Ideal for critical music recording applications in recording studios •Successor to the world famous Sony C-37A •Wide dynamic range, with 150 dB SPL input capability •Warm, clear and natural reproduction of wide frequency range •Selectable directivity — uni-directional or omni-directional •Large diaphragm capsule

Optional accessory: AC-MC800 AC Power Supply Unit

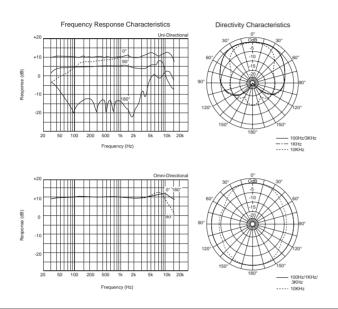




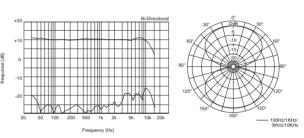
C-48

Condenser Microphone

•Selectable directivity — uni-directional, omni-directional or bi-directional •2-way powering — internal 6F-22 size battery (Approx. 50 hours of continuous operation) or external power supply (DC 48 V) •Suitable for vocal and instrumental recording •10 dB attenuation switch



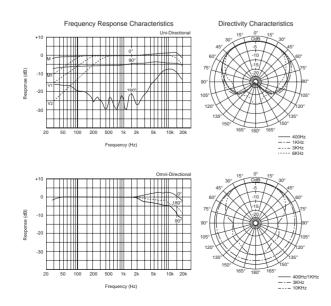




C-38B

Condenser Microphone

•Selectable directivity — uni-directional or omni-directional •140 dB SPL, suitable for recording wind instruments •2-way powering — internal 6F-22 size battery (Approx. 250 hours of continuous operation or external power supply (DC 24 V to 48 V) •Vibration resistant construction •Excellent shielding against external magnetic fields

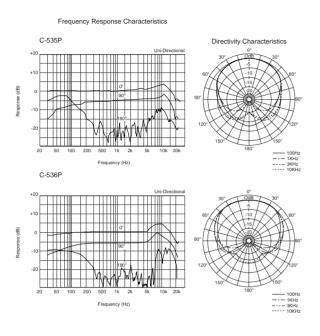




C-535P/C-536P

Condenser Microphone

•Alternative uni-directional characteristics — C-535P, maximum sensitivity on microphone axis; C-536P, maximum sensitivity at right angles to microphone axis •External power supply operation (DC 48 V)



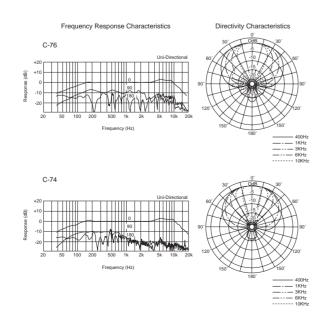


C-74/C-76

Condenser Microphone

- •Super-cardioid characteristics, rejecting indirect sound
- •2-way powering internal 3CR-MIC (9 V) battery (Approx.
- 30 hours of continuous operation) or external power supply (DC 24 to 48 V) $\,$
- •RF condenser design for low noise level

Optional accessories: SC-76 Carring Case SC-72 Carring Case





Specifications C-Series

		C-800G	C-800	C-38B	C-48	C-76	C-74	C-535P/536P
Capsule Type	е	Condenser	Condenser	Condenser	Condenser	Condender	Condenser	Condenser
Frequency Res	ponse	20 to 18,000 Hz	20 to 20,000 Hz	30 to 18,000 Hz	30 to 16,000 Hz	40 to 16,000 Hz	40 to 16,000 Hz	30 to 16,000 Hz
Directivity		UNI/OMNI	UNI/OMNI	UNI/OMNI	UNI/OMNI/BI	UNI	UNI	UNI
Effective Out Level at 1 kH (0 dBm=1 m	İz	-28.0 dBm (Uni) -31.0 dBm (Omni)	-44.0 dBm (Uni) -46.0 dBm (Omni)	-47.8 dBm	-38.8 dBm (Uni) -39.3 dBm (Omni) -38.3 dBm (Bi)	-38.0 dBm	-38.0 dBm	-40.0 dBm
Sensitivity (0 dB=1 V/1 Pa	a, at 1 kHz)	-32.0 dB ± 2.0 dB (Uni) -35.0 dB ± 2.0 dB (Omni)	-45.0 dB ± 2.0 dB (Uni) -47.0 dB ± 2.0 dB (Omni)	-48.0 dB ± 2.0 dB	-41.0 dB ± 2.0 dB (Uni) -41.5 dB ± 2.0 dB (Omni) -40.5 dB ± 2.0 dB (Bi)	-38.0 dB ± 2.0 dB	-38.0 dB ± 2.0 dB	-41.0 dB ± 2.0 dB
Output Impe At 1 kHz (bal		100 Ω ± 20%	200 Ω ± 20%	$250 \Omega \pm 20\%$	150 Ω ± 20%	$250 \Omega \pm 20\%$	250 Ω ± 20%	200 Ω ± 20%
Dynamic Rar	nge	≥ 113 dB	≥ 126 dB	≥ 116 dB	≥ 106 dB	≥ 112 dB	≥ 112 dB	≥ 116 dB
Signal-to-noise (A weighted, 1	Ratio kHz, 1 Pa.)	≥ 76 dB (Uni) ≥ 73 dB (Omni)	≥ 70 dB (Uni) ≥ 68 dB (Omni)	≥ 70 dB	≥ 72 dB	≥ 80 dB	≥ 80 dB	≥ 72 dB
Inherent Nois (0 dB SPL = 2		≤ 18 dB SPL (Uni) ≤ 21 dB SPL (Omni)	≤ 24 dB SPL (Uni) ≤ 26 dB SPL (Omni)	≤ 24 dB SPL	≤ 22 dB SPL	≤ 14 dB SPL	≤ 14 dB SPL	≤ 22 dB SPL
Induction No Ext. magnetic (dB SPL/1 x (0 dB SPL = 2	c Field 10 ⁻⁷ T)	≤ 0 dB SPL	≤ 0 dB SPL	≤ 5 dB SPL	≤ 0 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL
Wind Noise (0 dB SPL = 2	× 10 ⁻⁵ Pa.)	≤ 50 dB SPL	≤ 55 dB SPL	≤ 44 dB SPL	≤ 47 dB SPL	≤ 50 dB SPL	≤ 50 dB SPL	≤ 70 dB SPL (535P) ≤ 60 dB SPL (536P)
Max. Input Sound Press (0 dB SPL = 2			150 dB SPL (Uni) 152 dB SPL (Omni)	140 dB SPL	128 dB SPL	126 dB SPL	126 dB SPL	138 dB SPL
Mic Attenuat	or	_	_	-8 dB	-10 dB	_	_	-10 dB
Tone Control	Low-cut	_	_	M, M1, V1, V2	M, V	M, M1, V1	M, M1, V1	_
TOTIC CONTROL	High-cut		_	1	_	_	_	_
	Battery			S-006P (U)	S-006P (U)	3CR-MIC	3CR-MIC	_
Power Supply	Ext. Power			Ο	0	Ο	0	0
Standard	Battery	AC-MC800G	AC-MC800	9 V	9 V	9 V	9 V	_
Operating Voltage	Ext. Power	(Optional)	(Optional)	DC24-48	DC48	DC24-48	DC24-48	DC48
Current	Battery			≤ 2 mA	≤ 5 mA	≤ 5 mA	≤ 5 mA	_
Drain	Ext. Power			≤ 5 mA	≤ 1 mA	≤ 9 mA	≤ 9 mA	≤ 2 mA
Dimensions	mm	57 dia. x 191 x 237	57 dia. x 196	78 dia. x 214 x 46	54 dia. x 229 x 40	25 dia. x 678	25 dia. x 427	21 dia. x 154
	inch	2 ¹ / ₄ dia. x 7 ³ / ₈ x 9 ³ / ₈	2 ¹ / ₄ dia. x 7 ³ / ₄	3 ¹ / ₈ dia. x 8 ¹ / ₂ x 1 ¹³ / ₁₆	2 ¹ / ₄ dia. x 9 ¹ / ₈ x 1 ⁵ / ₈	1 dia. x 26 ³ / ₄	1 dia. x 16 ⁷ / ₈	²⁷ / ₃₂ dia. x 6 ¹ / ₈
Mass *		900 g	590 g	650 g	550 g	420 g	360 g	138 g (535P) 148 g (536P)
		2 lb	1 lb 5 oz	1 lb 7 oz	1 lb 4 oz	14.8 oz	12.7 oz	4.9 oz (535P) 5.3 oz (536P)
Supplied Accessories		Stand screw adaptor (PF¹½-inch thread → NS⁵/s-inch thread) (x 1) Stand screw adaptor (PF¹/z-inch thread) (x 1) Mic cable (x 1) Carrying case (x 1) G Sticker (x 1) Frequency response chart (x 2)	Wind screen (x 1) Cradle suspension (x 1) Stand screw adaptor (PF¹/₂-inch thread) (x 1) Stand screw adaptor (PF¹/₂-inch thread) (x 1) Stand screw adaptor (PF¹/₂-inch thread) (x 1) Mic cable (x 1) Carrying case (x 1) Screwdriver (x 1) Frequency response chart (x 2)	Carrying case (x 1) Screwdriver (x 1) Stand adaptor (x 2)	Carrying case (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1)	Wind screen (x 1) Microphone holder (x 1) Carrying case (x 1) Stand adaptor (x 2)
Remarks		Vacuum Tube	Vacuum Tube	_	_	Shotgun Microphone	Shotgun Microphone	_

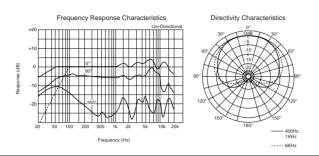
^{*} Without the battery for condenser and electret condenser microphones.

	C-800G	C-800	C-38B	C-48	C-76	C-74	C-535P/536P
Microphone Connector	CNR-01 type (7-pin)	XLR-6A type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type
Supplied Cable	JIS CNR-01 type (7-pin)	XLR-6A-11C type ↔XLR-6A-12C type	_	_	_	_	_
Cable Length	8 m (26.2 feet)	8 m (26.2 feet)	6 m (19.7 feet)	_	_	_	_
Available Receptacle	_	_	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type
External Power Supply (AC-148F) or Equivalent	_	_	Yes	Yes	Yes	Yes	Yes
Recommended Sony Battery	_	_	S-006P (U)	S-006P (U)	3CR-MIC	3CR-MIC	_
Battery Life (Approx.)	_	_	200 H	50 H	30 H	30 H	_
Supplied Mic Holder	_	_		_		_	Yes
Stand Screw/ Mic Holder Screw	PF ¹ / ₂ -inch thread	PF 1/2-inch thread	PF 1/2-inch thread	PF ¹ / ₂ -inch thread		_	PF ¹ / ₂ -inch thread
Supplied Stand Adaptor	NS ^{5/} 8-inch thread W³/8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	_	_	NS ⁵ /8-inch thread W ³ /8-inch thread
Mounting on A-12 (Available screw PF ¹ / ₂ -inch thread, U ⁵ / ₁₆ -inch thread)	_	Yes	Yes	Yes	_	_	Yes
Mounting on A-25 (Available screw U ⁵ / ₁₆ -inch thread, PF ¹ / ₂ -inch thread)	_	_	Not recommended			_	Yes
Mounting on A-25N (Available screw NS ⁵ /8-inch thread)	_	_	Not recommended		_	_	Yes
Mounting on CRS-3P	_	_	No	No	No	Yes	Yes

ECM-23F3PR

Electret Condenser Microphone

•Multi-purpose use •Low-cut filter •AA-size battery operation

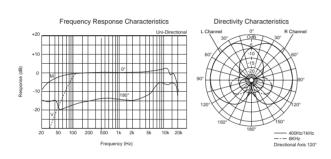




ECM-999PR

MS Stereo Electret Condenser Microphone

•Variable stereo angle (0° to 150°) •Low-cut filter •AA-size battery operation

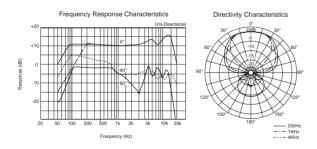




ECM-672

Electret Condenser Microphone

- •Super-cardioid characteristics, rejecting indirect sound
- •2-way powering internal battery (Approx. 3,000 hours of



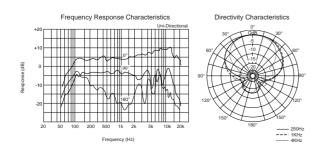
continuous operation) or external power supply (DC 48 V) •2-position low-cut filter •Suitable for mounting on Sony cameras and camcorders



ECM-670

Electret Condenser Microphone

•Super-cardioid microphone with minimum sensitivity to ambient noise •Compact and light weight design •Suitable for



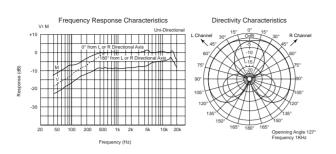
mounting on Sony cameras and camcorders •External power supply (DC 12 V to 48 V)



ECM-MS5

MS Stereo Electret Condenser Microphone

- •Compact and light MS (Mid-Side) stereo microphone
- •6-position stereo angle selector (0°, 90° to 127°)



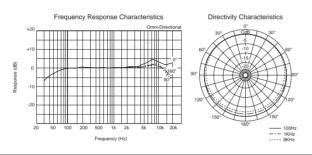
•2-way powering — external power supply or battery operation with optional DC-MS5



ECM-510

Electret Condenser Microphone

•Primarily for interview situations •Ultra slim and lightweight body •2-way powering — internal AA-size battery or external power supply (DC 12 V to 48 V)

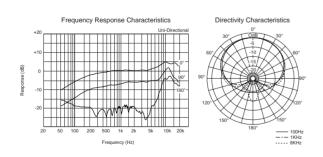




ECM-530

Electret Condenser Microphone

•A compact and high-quality table-top microphone •The goose-neck and extendable stem allow flexible microphone

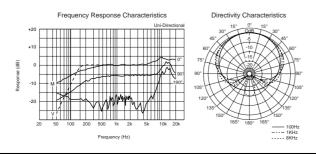


positioning for precise voice pick-up •2-way powering system
— internal AA-size battery or external power supply (DC 12
V to 48 V)



Electret Condenser Microphone ECM-531

- •Ideally suited for conference and lecture applications
- •Flexible goose-neck for microphone positioning
- •Equipped with a low-cut switch



- •External power supply (DC 12 V to 48 V)
- •Directly installed in conference tables and lecterns via an XLR-3-12C type connector



Specifications ECM-Series

		ECM-670	ECM-672	ECM-MS5	ECM-999PR	ECM-23F3PR	ECM-510	ECM-530	ECM-531
Capsule Ty	pe	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electre Condenser	Electret Condenser	Electre Condenser	Electret Condenser
Frequency Response		70 to 16,000 Hz	50 to 16,000 Hz	70 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz	40 to 17,000 Hz	70 to 18,000 Hz	70 to 18,000 Hz
Directivity		UNI	UNI	UNI	UNI	UNI	OMNI	UNI	UNI
Effective O Level at 1 k (0 dBm=1 m)	ĸHz,	-43.0 dBm	-42.0 dBm	-37.8 dBm (0°) -34.8 dBm (127°)	-51.0 dBm (120°)	-47.0 dBm	-50.0 dBm	-46.8 dBm	-42.8 dBm
Sensitivity (0 dB=1 V/1 Pa.	, at 1 kHz)	-44.0 dB ± 3.0 dB	-42.0 dB ± 2.0 dB	-40.0 dB ± 2.0 dB (0°) -37.0 dB ± 2.0 dB (127°)	-48.0 dB (120°)	-48.0 dB	-50.0 dB ± 2.0 dB	-49.0 dB ± 3.0 dB	-49.0 dB ± 3.0 dE
Output Imp at 1 kHz (ba		200 Ω ± 20%	250 Ω ± 20%	150 Ω ± 20%	480 Ω ± 20%	200 Ω ± 20%	250 Ω ± 20%	150 Ω ± 20%	60 Ω ± 20%
Dynamic Ra	nge	≥ 101 dB	≥ 92 dB	≥ 108 dB	≥ 104 dB	≥ 110 dB	≥ 97 dB	≥ 95 dB	≥ 100 dB
Signal-to-noi (A weighted, 1		≥ 70 dB	≥ 72 dB	≥ 74 dB (0°) ≥ 72 dB (127°)	≥ 68 dB (120°)	≥ 70 dB	≥ 65 dB	≥ 63 dB	≥ 64 dB
Inherent No (0 dB SPL = 2		≤ 24 dB SPL	≤ 22 dB SPL	≤ 20 dB SPL (0°) ≤ 22 dB SPL (127°)	≤ 26 dB SPL (120°)	≤ 24 dB SPL	≤ 29 dB SPL	≤ 31 dB SPL	≤ 30 dB SPL
Induction No Ext. Magneti (dB SPL/1 : (0 dB SPL = 2	c Field x 10 ⁻⁷ T)	≤ 0 dB SPL	≤ 0 dB SPL	≤ 0 dB SPL	≤ 10 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL
Wind Noise (0 dB SPL = 2		≤ 60 dB SPL	≤45 dB SPL	≤ 54 dB SPL	≤ 50 dB SPL	≤ 45 dB SPL	≤ 40 dB SPL	≤ 55 dB SPL	≤ 57 dB SPL
Max. Input Sound Press (0 dB SPL = 2		125 dB SPL	114 dB SPL	130 dB SPL	130 dB SPL	134 dB SPL	126 dB SPL	126 dB SPL	130 dB SPL
Tone	Low-cut	_	M,V	M,V	M,V	M,V	_	_	M,V
Control	High-cut	_	_	_	_	_	_	_	_
Power Supply	Battery power		IECR6 or LR6	DC-MS5 (Optional)	SUM-3 (NS)	SUM-3 (NS)	IECR6 or LR6	IECR6 or LR6	_
	Ext. power	0	0	0	_	_	0	0	0
Standard Operating Voltage	Battery	_	1.5 V	1.5 V/DC-MS5 (Optional)	1.5 V	1.5 V	1.5 V	1.5 V	_
voitage	Ext. power	DC12-48	DC48	DC12-48	_	_	DC12-48	DC12-48	DC12-48
Current Drain	Battery	_	≤ 0.3 mA	≤ 1.75 mA x 2/DC-MS5 (DC12 V) (Optional)		≤ 5 mA	≤ 0.23 mA	≤ 0.23 mA	_
	AC power	≤ 2.4 mA	≤ 0.5 mA	≤ 2 mA x 2x (DC48 V)	_	_	≤ 2 mA	≤ 2 mA	≤ 2 mA
Dimensions	mm	21 dia. x 226	24 dia. x 304	47.5 dia. x 212	40 dia. x 246	27 dia. x 190	Max. 23 dia. 8.5 dia. x 364	12 dia. x 326 to 448 86 dia. (Table Stand)	12 dia. x 326 to 482
	inch	²⁷ /32 dia. x 9	³¹ / ₃₂ dia. x 12	1 ⁷ / ₈ dia. x 8 ³ / ₈	1 ⁵ / ₈ dia. x 9 ³ / ₄	1 ¹ / ₆ dia. x 7 ¹ / ₂	Max. ²⁹ / ₃₂ dia. ¹¹ / ₃₂ dia.x 14 ³ / ₈	1/2 dia. x 12 ⁷ /8 to 17 ³ /8 3 ¹ /2 dia. (Table stand)	1/2 dia .x 14 1/6 to 19
Mass *		165 g	230 g	215 g	366 g	215 g	125 g	325 g	130 g
		5.8 oz	8.1 oz	7.6 oz	13 oz	7.6 oz	4.4 oz	11.5 oz	4.6 oz
Supplied Accessories		Wind screen (x 1) Microphone holder (x 1) Microphone spacer (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1) Microphone holder (x 1) Microphone cable (x 1) Stand adaptor (x 1)	Stand adaptor (x 2)	Wind screen (x 1) Microphone holder (x 2) Microphone cable (x 1) Stand adaptor (x 2) Carrying case (x 1)	Wind screen (x 1) Microphone holder (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1)
Remarks		Short Shotgun	Short Shotgun	MS Stereo	MS Stereo		_		_

^{*} Without the battery for condenser and electret condenser microphones.

Specifications ECM-Series

	ECM-670	ECM-672	ECM-MS5	ECM-999PR	ECM-23F3PR	ECM-510	ECM-530	ECM-531
Microphone Connector	XLR-3-12C type	XLR-3-12C type	XLR-5-12C type	XLR-5-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type
Supplied Cable	_	_	XLR-5-11C type \$ XLR-3-12C type	XLR-5-11C type \$\text{XLR-3-12C type}\$	XLR-3-11C type	_	_	_
			ALM-3-120 type	(x 2)	Priorie plug			
Cable Length	_	_	3 m (9.8 feet)	2.5 m (8.2 feet)	6 m (19.7 feet)	_	2 m (6.6 feet)	_
Available Receptacle	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	Phone jack	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type
External Power Supply (AC-148F) of Equivalent	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Recommended Sony Battery		SUM-3 (NS)	LR6 (Alkaline)	SUM-3 (NS)	SUM-3 (NS)	SUM-3 (NS)	SUM-3 (NS)	
Battery Life (Approx.)		3,000 H	20 H	80 H	150 H	5,000 H	5,000 H	_
Supplied Mic Holder	Yes	_	Yes	Yes	Yes	Yes	_	
Stand Screw/ Mic Holder Screw	PF1/2-inch thread	_	PF ¹ / ₂ -inch thread	PF 1/2-inch thread	PF ¹ / ₂ -inch thread	PF ¹ / ₂ -inch thread	_	_
Supplied Stand Adaptor	NS ⁵ /8-inch thread W ³ /8-inch thread	_	NS ⁵ / ₈ -inch thread W ³ / ₈ -inch thread	NS ⁵ / ₈ -inch thread W ³ / ₈ -inch thread	NS ⁵ / ₈ -inch thread W ³ / ₈ -inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	_	_
Mounting on A-12 (Available screw PF ¹ / ₂ -inch thread U ⁵ / ₁₆ -inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	_	_
Mounting on A-25 (Available screw U ⁵ / ₁₆ -inch thread, PF ¹ / ₂ -inch thread)	Yes		Yes	Yes	Yes	1	_	
Mounting on A-25N (Available screw NS ⁵ / ₈ -inch thread)	Yes	_	Yes	Yes	Yes	_	_	_
Mounting on CRS-3P	Yes	Yes	Yes	No	Yes	Yes	_	_

ECM-44 Series

Lavalier Microphones

•8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch), 2 g (0.07 oz) microphone head •Excellent cost/performance ratio •AA-size battery operation

ECM-44B (Black)

•Complete with in-line battery unit

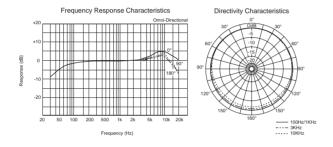
ECM-44BC (Black)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

ECM-44BPT (Black)

•Pigtail connection, without battery unit or connector





ECM-55 Series

Lavalier Microphones

•10.6 mm dia. x 21 mm ($\frac{7}{16}$ inch dia. x $\frac{27}{32}$ inch), 6.5 g (0.2 oz) microphone head •Frequency response tailored for enhanced presence and improved voice quality in lavalier applications •2-way powering — AA-size battery or external power supply (DC 12 V to 48 V)

ECM-55B (Black)

•Complete with in-line battery unit for 2-way powering

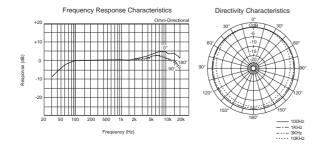
ECM-55BC (Black)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

ECM-55BPT (Black)

•Pigtail connection, without battery unit or connector





ECM-66 Series

Lavalier Microphones

•10.6 mm dia. x 24.3 mm (7/16 inch dia. x 31/32 inch), 7 g (0.24 oz) microphone head •Designed for instrumental applications •2-way powering — AA-size battery or external power supply (DC 24 V to 48 V) •130 dB SPL max. input sound pressure level

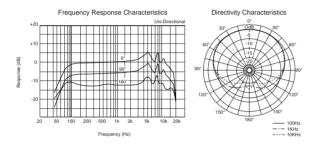
ECM-66B (Black)

•Complete with in-line battery unit for 2-way powering

ECM-66BC (Black)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter





ECM-77 Series

Lavalier Microphones

•5.6 mm dia. x 12.5 mm ($\frac{1}{4}$ inch dia. x $\frac{1}{2}$ inch), 1.5 g (0.04 oz) microphone head •High performance, frequency response 40 Hz to 20,000 Hz •2-way powering — AA-size battery or external power supply (DC 12 V to 48 V)

ECM-77S (Silver)/ECM-77B (Black)

•Complete with in-line battery unit for 2-way powering

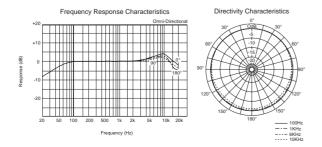
ECM-77SC (Silver)/ECM-77BC (Black)/ ECM-77FC (Beige Color Finish)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

ECM-77BPT (Black)/ECM-77FPT (Beige Color Finish)

•Pigtail connection, without battery unit or connector





ECM-166BC

Lavalier Microphone

•12.5 mm dia x 23.5 mm ($\frac{1}{2}$ inch dia. x $\frac{15}{16}$ inch), 3.5 g (0.12 oz) microphone head •Uni-directional •SMC9-4P connector for connection to Sony wireless transmitters



ECM-310BC

Headset Microphone

•Headset-style uni-directional microphone for sound reinforcement applications •Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter



ECM-350BC

Headset Microphone

•Headset-style omni-directional microphone for TV/sound reinforcement applications •Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter



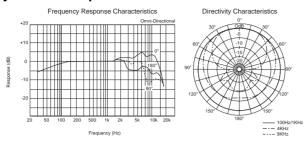
Specifications

		ECM-44	ECM-55	ECM-66	ECM-77				
Model Variations	Type A	Standard type: 3.0 m (3.9 fe	Standard type: 3.0 m (3.9 feet) cable terminating in an XLR-3-12C type connector, battery equipped						
- Model name		44B	55B	66B	77S, 77B				
- Cable length	Type B	Pig tail type: 3.0 m (3.9 fee) cable without connector, bat	tery					
- Output connector		44BPT	55BPT	_	77BPT, 77FPT				
- Battery	Type C	SMC type: 1.2 m (3.9 feet) o	able terminating in a SMC9-4P	type connector, without batte	ery				
- Finish (B: Black, S: Silver, F:	Beige)	44BC	55BC	66BC	77SC, 77BC, 77FC				
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser				
Frequency Response		40 to 15,000 Hz	30 to 18,000 Hz	70 to 14,000 Hz	40 to 20,000 Hz				
Directivity		Omni-directional	Omni-directional	Uni-directional	Omni-directional				
Sensitivity	Type A	-53.0 dB ±3 dB	-52.0 dB ±2 dB	-50.0 dB ±2 dB	-52.0 dB ±2 dB				
(0 dB=1 V/Pa, at 1 kHz)	Type B, C	-40 dB (10 mV)	-38.5 dB (11.9 mV)	-36.5 dB (15 mV)	-39.0 dB (11.2 mV)				
Output Impedance	Type A	250 Ω ±20% (balanced)	100Ω ±20% (balanced)	100 Ω ±20% (balanced)	150 Ω ±20% (balanced)				
At 1 kHz	Type B, C	_	_	_	_				
Dynamic Range		≥ 90 dB	≧ 98 dB	≧101 dB	≥ 90 dB				
Signal-to-noise Ratio (A-weighted, 1 kHz, 1 Pa)	≧ 62 dB	≧ 66 dB	≧ 65 dB	≧ 64 dB				
Inherent Noise (0 dB SPL=2 x 10 ⁻⁵ Pa.)		≦ 32 dB SPL	≤ 32 dB SPL ≤ 28 dB SPL ≤ 29 dB SPL		≦ 30 dB SPL				
Wind Noise (w/wind scree (0 dB SPL=2 x 10 ⁻⁵ Pa.)	en, at 2 m/s)	≦ 40 dB SPL	≦ 40 dB SPL	≦ 50 dB SPL	≦ 40 dB SPL				
Induction Noise from Extended (dB SPL/1 x 10-7 T, 0 dB S		≦ 5 dB SPL	≦ 5 dB SPL	≦ 5 dB SPL	≦ 5 dB SPL				
Maximum Input Sound Pr (0 dB SPL=2 x 10 ⁻⁵ Pa.)	ressure Level	122 dB SPL	126 dB SPL	130 dB SPL	120 dB SPL				
Power Supply	Battery	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)				
	Battery Life	Approx. 5000 H	Approx. 5000 H	Approx. 300 H	Approx. 5000 H				
	Ext. Power	_	DC 12 to 48 V	DC 24 to 48 V	DC 12 to 48 V				
Normal Operating Voltage	e	Туре	A: DC 1.5 V, Type B, C: D0	C 3 V (supply range: DC 3 -	10 V)				
Current Drain		Less that	n 0.3 mA	Less than 3.5 mA	Less than 0.3 mA				
Dimensions	Microphone Head	8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch)	10.6 mm dia. x 21 mm (7/16 inch dia. x 27/32 inch)	10.6 mm dia. x 24.2 mm (7/16 inch dia. X 31/32 inch)	5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch)				
	Power Unit	20.0 mm dia. x 126 mm (13/16 inch dia. x 5 inches)	20.0 mm dia. x 133 mm (13/16 inch dia. x 5 1/4 inches)	20.0 mm dia. x 163 mm (13/16 inch dia. x 6 1/2 inches)	20.0 mm dia. x 133 mm (13/16 inch dia. x 5 1/4 inches)				
Mass	Microphone Head	2 g (0.07 oz)	6.5 g (0.23 oz)	7 g (0.25 oz)	1.5 g (0.05 oz)				
	Total	121 g (4.3 oz)	127 g (4.5 oz)	167 g (5.9 oz)	122 g (4.3 oz)				
Supplied Accessories (S: Single type, V: Vertical ty U: Urethane type)	/pe, M: Metal-mesh type,	S.H. holder clip (x 1) U. wind screen (x 1) Microphone case (x 1)	S.H. holder clip (x 1) S.V. holder clip (x 1) M wind screen (x 1) Microphone case (x 1)	S.H. holder clip (x 1) S.V. holder clip (x 1) U. wind screen (x 1) Microphone case (x 1)	S.H. holder clip (x 1) S.V. holder clip (x 1) M. wind screen (x 1) Microphone case (x 1)				

		ECM-166	ECM-310	ECM-350
Model Variations	Type A	Standard type: 3.0 m (3.9 feet)	cable terminating in an XLR-3-120	type connector, battery equipped
- Model name		_	_	_
- Cable length	Type B	Pig tail type: 3.0 m (3.9 feet	t) cable without connector, bat	ttery
- Output connector		_	_	_
- Battery	Type C	SMC type: 1.2 m (3.9 feet) cabl	e terminating in a SMC9-4P type	connector, without battery
- Finish (B: Black, S: Silver, F: Beige)		166BC	310BC	350BC
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser
Frequency Response		100 to 10,000 Hz	70 to 12,000 Hz	40 to 15,000 Hz
Directivity		Uni-directional	Wide-cardioid	Omni-directional
Sensitivity	Type A	_	_	_
(0 dB=1 V/Pa, at 1 kHz)	Type B, C	-45 dB (5.6 mV)	-44 dB (6.3 mV) ±3 dB	-40 dB (10 mV) ±3 dB
Output Impedance	Type A	_	_	_
At 1 kHz	Type B, C	$2.5 \text{ k}\Omega \pm 30\% \text{ (unbalanced)}$	$800~\Omega$ ±30% (unbalanced)	2.5 kΩ ±30% (unbalanced)
Dynamic Range		≥ 96 dB	≥ 93 dB	≧ 100 dB
Signal-to-noise Ratio (A-weighted, 1 kHz, 1 Pa.)		≧ 60 dB	≧ 60 dB	≧ 62 dB
Inherent Noise (0 dB SPL=2 x 10 ⁻⁵ Pa.)		≦ 34 dB SPL	≦ 34 dB SPL	≦ 32 dB SPL
Wind Noise (w/wind screen, at (0 dB SPL=2 x 10 ⁻⁵ Pa.)	2 m/s)	_	≦ 63 dB SPL	≦ 40 dB SPL
Induction Noise from External M (dB SPL/1 x 10 ⁻⁷ T, 0 dB SPL=2		_	_	_
Maximum Input Sound Pressure (0 dB SPL=2 x 10 ⁻⁵ Pa.)	e Level	130 dB SPL	127 dB SPL	132 dB SPL
Power Supply	Battery	_	_	_
	Battery Life	_	_	_
	Ext. Power	_	_	_
Normal Operating Voltage		DC 3 V (supply range: DC 3 - 10 V)	DC 5 V (supply ra	ange: DC 3 - 10 V)
Current Drain		Less than 0.4 mA	Less than 0.32 mA	Less than 0.3 mA
Dimensions	Microphone Head	12.5 mm dia. x 23.5 mm (1/2 inch dia. x 15/16 inch)	10.0 mm dia. x 152 mm (13/32 inch dia. x 5/8 inch)	8.5 mm dia. x 15.6 mm 11/32 inch dia. x 5/8 inch)
	Power Unit	_	_	_
	Microphone Head	3.5 g (0.12 oz)	_	_
Total		_	46 g (17 oz)	44 g (1.6 oz)
Supplied Accessories (S: Single type, V: Vertical type,M: U: Urethane type)	Metal-mesh type,	U. wind screen (x 1) Holder clip (x 1)	U. wind screen (x 1)	U. wind screen (x 1)

F-115

Dynamic Microphone

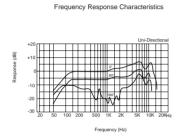


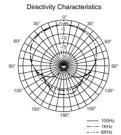
•Weather resistant for outdoor applications •Ideal for reporter use •Frequency response: 40 to 12,000 Hz



F-710

Dynamic Microphone



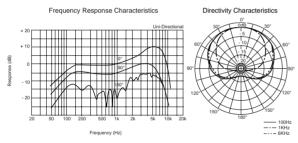


•For multi-purpose applications •Built-in TALK switch •High sensitivity with the Neodymium magnet •XLR-3-12C type connector •Frequency response: 70 to 15,000 Hz •Dimensions: 54 mm dia. x 177 mm (2 ½ inches dia. x 7 inches) •Mass: 250 g (8.8 oz)



F-720

Dynamic Microphone

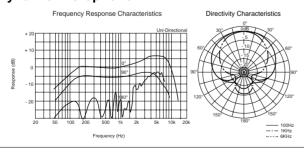


•For multi-purpose applications •Convenient TALK switch for turning on and off the microphone •Vibration proof capsule suspension •XLR-3-12C type connector •Frequency response: 50 to 13,000 Hz •Dimensions: 37.6 mm dia. x 160 mm (1 ½ inches dia. x 6 % inches) •Mass: 260 g (9.2 oz)



F-730

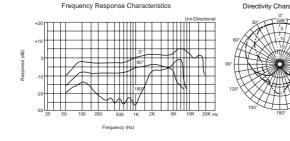
Dynamic Microphone



•For vocal applications •Convenient TALK switch for turning on and off the microphone •Vibration-proof capsule suspension •XLR-3-12C type connector •Frequency response: 50 to 13,000 Hz •Dimensions: 44.4 mm dia. x 166 mm (1 ¾ inches dia. x 6 ½ inches) •Mass: 250 g (8.8 oz)



F-740 Dynamic Microphone

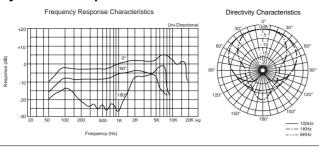


•For vocal and instrumental pick-up •Rugged capsules in a resilient body structure •Special AlNiCo Magnet •High quality CCAW (Copper Clad Alminium Wire) voice coil •XLR-3-12C type connector •Frequency response: 50 to 18,000 Hz •Dimensions: 51 mm dia. x 165 mm (2 ½ inches dia. x 6 ½ inches) •Mass: 290 g (10.2 oz)



F-780

Dynamic Microphone



•For vocal recording •Rugged capsules in a resilient body structure •Special AlNiCo Magnet •High quality edgewise winding CCAW (Copper Clad Alminium Wire) voice coil •XLR-3-12C type connector •Frequency response: 50 to 18,000 Hz •Dimensions: 51 mm dia. x 165 mm (2 1/8 inches dia. x 6 1/2 inches) •Mass: 290 g (10.2 oz)



Specifications

		F-710	F-720	F-730	F-740	F-780	F-11	15* ²
							(CE7)	(CE)
Capsule Type		Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	Dyna	amic
Frequency Response	onse	70 to 15,000 Hz	50 to 13,000 Hz	50 to 13,000 Hz	50 to 18,000 Hz	50 to 18,000 Hz	40 to 12,000 Hz	
Directivity		UNI	UNI	UNI	UNI	UNI	ON	1NI
Effective Output Level at 1 kHz, (0 dBm=1 mW/1		-56.0 dBm	-60.0 dBm	-59.0 dBm	-56.0 dBm	-55.0 dBm	-57.8	dBm
Sensitivity (0 dB=1 V/1 Pa.,	at 1 kHz)	-54.0 dB± 3.0 dB	-57.0 dB± 3.0 dB	-56.0 dB± 3.0 dB	-54.0 dB± 2.0 dB	-53.0 dB± 2.0 dB	-54.0 dB	± 2.0 dB
Output Impedant 1 kHz (balanced		400 Ω ±20%	500 Ω ±20%	500 Ω ±20%	400 Ω ±20%	400 Ω ±20%	600 Ω	±20%
Induction Noise f Ext. Magnetic Fie (dB SPL/1 x 10 ⁻⁷ (0 dB SPL + 2 x	eld T)	≤ 5 dB SPL	≤ 10 dB SPL	≤ 10 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 df	3 SPL
Wind Noise (0 dB SPL + 2 x	10 ⁻⁵ Pa.)	≤ 55 dB SPL	≤ 55 dB SPL	≤ 45 dB SPL	≤ 50 dB SPL	≤ 50 dB SPL	≤ 40 d	B SPL
Microphone Con	nector	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	_	_
Supplied Cable		_	_	_	_	_	XLR-3-12C	XLR-3-11C
Cable Length		=	_	_	_	_	6 m (19	0.7 feet)
Available Recept	tacle	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-12C typ
Supplied Mic Ho	lder	Yes	Yes	Yes	Yes	Yes	Ye	es
SAD-700 Optional N	vic Holder	Yes	-	_	Yes	Yes	_	
Stand Screw/ Mic Holder Screv	W	PF ¹ / ₂ -inch thread	PF ¹ / ₂ -inch thread	PF ¹ / ₂ -inch thread	PF ¹ / ₂ -inch thread	PF ¹ / ₂ -inch thread	PF ¹ / ₂ -inc	h thread
Supplied Stand A	Adaptor	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	NS ⁵ /8-inch thread W ³ /8-inch thread	W ³ / ₈ -inch thread
Mounting on A-1 (Available screw PF ¹ / ₂ -inch thread U ⁵ / ₁₆ -inch thread	H	Yes	Yes	Yes	Yes	Yes	Ye	es
Mounting on A-2 (Available screw U ⁵ / ₁₆ -inch thread PF ¹ / ₂ -inch thread	I	Yes	Yes	Yes	Yes	Yes	Ye	es
Mounting on A-2 (Available screw NS ⁵ /8-inch thread		Yes	Yes	Yes	Yes	Yes	Ye	9S
Mounting on CR	S-3P	Yes	Yes	Yes	Yes	Yes	Ye	es
Dimensions mm	n	54 dia. x 177	37.6 dia. x 160	44.4 dia. x 166	51 dia. x 165	51 dia. x 165	Max. 30 dia.,	24.6 dia. x 173
inc	h	2 ¹ / ₄ dia. x 7	1 ¹ / ₂ dia. x 6 ³ / ₈	1 ³ / ₄ dia. x 6 ⁵ / ₈	1 ³ / ₄ dia. x 6 ⁵ / ₈ 2 ¹ / ₈ dia. x 6 ¹ / ₂ 1 ¹ / ₈ dia. x 6 ¹ / ₂ ³¹ / ₃₂ dia. x		ı. x 6 ⁷ /8	
Mass*1		250 g	250 g 260 g 250 g 290 g 290 g		270	O g		
		8.8 oz	9.2 oz	8.8 oz	10.2 oz	10.2 oz	9.5	OZ
Supplied Access	plied Accessories Microphone holder (x 1) Stand adaptor (x 2) Microphone holder (x 1) Stand adaptor (x 2) Microphone holder (x 1) Stand adaptor (x 2) Microphone holder (x 1) Stand adaptor (x 2) Stand adaptor (x 2)		Microphone holder (x 1) Stand adaptor (x 2) Wind screen (x 1) Microphone case (x 1)					
Remarks		_	_	_	_	_	-	_
		I	1	I .	1	I .	I .	

^{* &}lt;sup>1</sup> Without the battery for condenser and electret condenser microphones.

^{*2} The F-115(CE7) is suitable for use with TC-D5 PROII. The F-115(CE) is suitable for use with TC-D5 PRO.

AC-148F

AC Power Supply

•System: 2-channel external power supply •Power requirements: AC 220 to 240 V, 50/60 Hz •Output voltage: DC 48 V •Dimensions: 201 (W) x 74 (H) x 169 (D) mm (8 x 3 x 6 ¾ inches) • Mass: 2 kg (4 lb 7 oz)



AC-MC800G

AC Power Supply Unit for C-800G



AC-MC800

AC Power Supply Unit for C-800



SC-76

Carrying Case

• For packing C-76 and accessories



SC-72

Carrying Case

• For packing C-74, ECM-672 or ECM-MS5 and accessories



A-12

Table Stand

•Available screw: U5/16-inch thread

PF1/2-inch thread

•Mass: 1.4 kg (3 lb 1 oz)



A-25

Table Stand

•Available screw: U5/16-inch thread

PF½-inch thread

•Mass: 1.0 kg (2 lb 3 oz)



A-25N

Table Stand

•Available screw: NS%-inch thread •Mass: 1.0 kg (2 lb 3 oz)

SAD-26

Microphone Stand Pole

•Available screw: U5/16-inch thread

PF½-inch thread (male) PF½-inch thread (female)

•Height: 120 mm (4 ³/₄ inches)



SAD-28

Shock-mounted Adaptor

• Available screw: U5/16-inch thread

PF½-inch thread (male) PF½-inch thread (female)



EC-10XLR2/5XLR2

Microphone Cable

- Cable length: 10 m (32.8 feet) or 5 m (16.4 feet)

CRS-3P

Cradle Suspension

•Available screw: PF½-inch thread •Supplied stand screw adaptor: NS½-inch thread •Grip: 19 to 24 mm dia. (3 /4 to $^{31}/_{32}$

inch dia.) •Mass: 150 g (5.3 oz)



SAD-700

Microphone Holder

•Available screw: PF½-inch thread •Grip: 24 mm dia. (3½) inch dia.)

•Mass: 70 g (2.5 oz)



B-305B

Boom Stand

•Available screw: PF1/2-inch thread, U5/16-inch thread

•Supplied stand screw adaptor: NS%-inch thread, W%-inch thread •Boom length: 828 mm (32 % inches) •Stand height: 980 to 1500 mm (38 % to 59 % inches) •Mass: 4.6 kg (10 lb 2 oz)



B-500

Floor Stand

•Available screw: PF1/2-inch thread, U5/16-inch thread

•Supplied stand screw adaptor; NS5%-inch thread, W3%-inch thread •Pole length: 880 to 1530 mm (34 3/4 x 60 1/4 inches)

w/o stand adaptor •Mass: 4.6 kg (10 lb 2 oz)



19-5 Wired Microphones

Batteries

Sony	IEC	MEDIA No.	Eveready	Voltage
S-006P (U)	6F-22	1604	216	9 V
006P (Alkaline)	_	1604A	522	9 V
SUM-1(NS)	P20	13D	1250	1.5 V
SUM-3(NS)	R6P	15D	1215	1.5 V
AM3	LR6	15A	E91	1.5 V
3CR-MIC	_	_	_	9 V

Holder Clips and Wind Screens

	Туре		Finish	ECM-77	ECM-66	ECM-55	ECM-44	Remarks
	Single (Horizontal)	S	Black	SAD-H77B	SAD-H55B	SAD-H55B	SAD-H44B	10 pcs in each package
Holder Clip	Double (Horizontal)	200	Black	SAD-W77B	SAD-W55B	_	_	6 pcs in each package
	Single (Vertical)		Black	SAD-V77B	SAD-V55B	_	_	10 pcs in each package
	Safety Pin Type	المن المناسبة	Silver type	SAD-S77	SAD-S55	SAD-S55	_	6 pcs in each package
Power Supply Holder		9	Silver type		SAD-B100	3 pcs in a package		
	Metal		Silver type	AD-R77S	_	_	_	6 pcs in each package
	Wictai	-	Black	AD-R77B	_	AD-R55B	_	package
Wind Screen	Urethane	•	Black	_	AD-R66B	_	AD-R44B	12 pcs in each package
	Urethane	388	6 colors	AD-C77	AD-C66	AD-C55	_	12 pcs in each package (6 colors x 2 pcs)

WRT-867A

UHF Synthesized Wireless Microphone

•For critical vocal recording •PLL synthesized control transmission •In a resilient body structure, a uni-directional dynamic microphone capsule incorporates a high quality edgewise-winding voice coil with lightweight CCAW (Copper Clad Aluminium Wire) and AlNiCo magnet •Approx.4 hours of continuous operation at 10 mW RF output level is provided by an AA-size (LR6) alkaline battery •LED power indicator •Wireless channel buttons built in the body to prevent misoperation



WRT-830A

UHF Synthesized Wireless Microphone

•High quality sound for vocals •PLL synthesized control transmission •Approx.8 hours of continuous operation is provided by 2 AA-size (LR6) alkaline batteries. The battery status can be shown on the built-in LCD •An ON/OFF power switch inside the body for free from misoperation, preventing a user from accidentally turning-off the switch during operation •Low handling noise due to the electret capsule •Selectable RF Output 10 mW or 2.5 mW •Easy-to-read LCD indication



WRT-810A

UHF Synthesized Wireless Microphone

•PLL synthesized control transmission •Approx. 8 hours of continuous operation is provided by 2 AA-size (LR6) alkaline batteries. The battery status can be shown on the built-in LCD. •Uni-directional dynamic capsule •Easy-to-read LCD display •Built-in talk switch •Selectable RF output 10 mW or 2.5 mW



WRT-860A

UHF Synthesized Wireless Transmitter

•PLL synthesized control transmission

•Ultra-compact and lightweight design, measuring only 63 (W) x 88 (H) x 17 (D) mm (2 ½ x 3 ½ x 11/18 inches) •A 20 mW RF output •Detachable antenna •Approx.6 hours of continuous operation is provided from 2 AA-size (LR6) alkaline batteries •An LCD indicates extensive information on operating conditions such as accumulated working time, wireless channel frequency in MHz and battery status •Highly

durable •Lavalier Microphones Capability



WRT-822A

UHF Synthesized Transmitter

•PLL synthesized control transmission •Approx.8 hours continuous operation with 2 AA-size (LR6) alkaline batteries •Compact and lightweight design, measuring 63 (W) x 103 (H) x 17 (D) mm (2 ½ x 4 1/8 x 11/18 inches) •Easy-to-read LCD for comprehensive system information such as battery status, accumulated working time and frequency level •Lavalier microphones capability



ECM-77BC

Lavalier Microphone

•5.6 mm dia. x 12.5 mm ($\frac{1}{4}$ inch dia. x $\frac{1}{2}$ inch), 1.5 g (0.04 oz) microphone head •High performance, 40 Hz to 20,000 Hz frequency response •Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless microphone system



ECM-310BC

Electret Condenser Microphone

•Headset-style microphone for sound reinforcement applications •Fitted with a wide-cardioid microphone, which provides crisp and clear sound while isolating desired sound from surrounding ambience •Designed for use with the WRT-822A UHF Synthesized Transmitter (also suitable for use with the WRT-860A model) •Adjustable hinge and gooseneck for a wide range of adjustment •Unobtrusive, anti-slide headband •SMC9-4P connector to interface with Sony wireless transmitters



ECM-350BC

Electret Condenser Microphone

•Headset-style microphone for TV/sound reinforcement applications •Fitted with an omni-directional microphone, which reduces pop-noises and allows optimum sound pick-up and enhanced intelligibility under almost any situation •Designed for use with the WRT-860A UHF Synthesized Transmitter (also suitable for use with the WRT-822A model) •Lightweight and with flexible microphone positioning for optimum vocal pick-up •Unobtrusive, anti-slide headband •SMC9-4P connector to interface with Sony wireless transmitters



Specifications

		WRT-867A	WRT-830A	WRT-810A	WRT-860A	WRT-822A
Oscillator			Crys	stal-controlled PLL synthe	sizer	
Type of Em	nission			110KF3E		
RF Power (Dutput	10 mW	10 mW or 2.5 r	mW, selectable	20 mW	10 mW
Antenna		Helical	1/4 wave length whip antenna		1/4 wave length whip antenna, SMA-J type connector	1/4 wave length whip antenna
Reference	Deviation			± 5 kHz		
Frequency	Response	50 Hz to 15000 Hz	70 Hz to 15000 Hz	100 Hz to 13000 Hz	70 Hz to 15,000 Hz	70 Hz to 15,000 Hz
Signal-to-n	oise Ratio			60 dB (A-weighted)		
Modulation	Distortion	1.0%	1.5	5%	1.0	0%
Attenuator Range or F	Adjustment Pad	0, 6 dB or 12 dB	0 to 12dB, variable in 3 dB steps	0 to 21 dB, variable in 3 dB steps	0 to 30 dB 0 to 21 dB in 3 dB steps variable in 3 dB	
Reference	Reference Input Level —		-60 dBV			
Max. Input Pressure L (0 dB SPL		142 dB SPL	(w/12 dB attenuator) 151 dB SPL (w/21 dB attenuator)		_	_
Microphon	e Capsule	Dynamic	Electret condenser	Dynamic	_	_
Directivity			Uni-directional		_	_
Operating	Voltage	1.5 V, LR6 AA-size alkaline battery (x 1)	3 V, LR6 AA-size a	lkaline battery (x 2)	3 V, LR6 AA-size alkaline battery (x 2)	
Power Con	sumption	Less than 240 mA (at 1.5 V)	170	mA	185 mA	170 mA
Battery Life	9	Approx. 4 hours w/LR6 alkaline battery (x 1)		Approx. 8 hours w/LR6 AA-size alkaline batteries (x 2)		Approx. 8 hours w/LR6 AA-size alkaline batteries (x 2)
Dimension	S	51 mm dia. x 195 mm (2 ½ inches dia. x 7 ¾ inches)			63 (W) x 78 (H) x 17 (D) mm (2 1/2 x 3 1/8 x 11/16 inches)	63 (W) x 103 (H) x 17 (D) mm (2 1/2 x 4 1/8 x 11/16 inches)
Mass		320 g (11.2 oz) w/battery	300 g (10.5 oz) w/batteries		160 g (5.6 oz) w/batteries	145 g (5.1 oz) w/batteries
Supplied	ed Microphone Holder PF1/2-inch thread			Leatherette case (x 1)		
Accessories	Stand Screw Adaptor	AU: PF ¹ /2-ir	h thread to NS ⁵ / ₈ -inch thread (x 1)		Spare battery case (x 1) Microphone cable (x 1) (EC-1.5CF)	Soft case (x 1)

^{*}For specifications of ECM-310BC/350BC, please refer to page 280.

WRR-850A

UHF Synthesized Diversity Tuner

•Headphone monitoring output •Outstanding sound quality
•Twin turners •Versatile display •Space diversity reception
system •Convenient pre-programmed channel plans •Muting
function •Comprehensive system information •1U high and
19-inch rack mountable •Compander system for wide
dynamic range and low noise •Squelch circuitry operated by
ultrasonic tone for positive transmitter reception •DC 9 V
power supply for two UHF AN-820A antenna



*Not available in some areas

WRR-840A

UHF Synthesized Diversity Tuner with Dual Reception System



WRR-820A

UHF Synthesized Diversity Tuner with Single Reception System

•PLL Synthesized Tuning •Diversity Reception
•Intermodulation-free pre-programmed channel plan •Three selectable output levels -60 dB, -40 dB or -20 dB •Provides DC 9 V power supply for the UHF AN-820A Antenna •1U High and 19-inch Rack Mountable



WRR-810A

UHF Synthesized Tuner

•Compact, lightweight and easy to mount on Betacam SP camcorders •Approx. 6 hours of continuous operation by 2 AA-size (LR6) alkaline batteries The battery status can be shown on the built-in LCD. •AF monitoring function •Switchable muting RF level 15 dBµ



WRR-860A

UHF Synthesized Diversity Tuner

•Portable space diversity reception •Intermodulation-free factory-stored pre-programmed channel plan •LCD operating status display such as accumulative working time and a battery status •Approx. 6 hours of continuous operation by 4 AA-size (LR6) alkaline batteries •Supplied attachment, holder kit and DC cable for Sony Betacam camcorder •Monitoring function •Switchable muting RF level 5 dBμ, 15 dBμ or 25 dBμ •Interface multi-connector for communications with K-1234 portable base unit



WRR-855A

UHF Synthesized Diversity Tuner

- •Slot-in type portable tuner designed for use with Sony Betacam SX camcorders •Water proof structure
- •Compact design and lightweight only 280 g (11 oz) •Space diversity system for highly stable signal reception •Preprogrammed, intermodulation-free, groups of frequencies stored in CPU for simultaneous multi-channel operation
- •Tone-squelch circuit for noise elimination •LED indications of received RF signal level and audio output
- •LCD shows
- wireless microphone operating channel and group
- error messages
- •Powered from camcorder
- direct interfacing with Sony Betacam SX camcorders
- via optional mounting adaptor (BTA-801) with other Sony camcorders
- •Muting RF level 10 dBµ or OFF switchable



BTA-801

Portable Tuner Mount Adaptor

•Mounting adaptor for a WRR-855A to fit on a Sony camcorder •Provides DC power supply from a camcorder to the WRR-855A by incorporating a DC-DC converter



DC-WL800

DC Pack Unit

•The DC-WL800 can be used to power a WRR-810A Portable Receiver, the attached power cable of this DC pack making it very convenient to mount the receiver onto any Betacam camcorder •As an alternative to operating a WRT-860A, or WRT-822A, on batteries, the battery case can be removed and replaced by a DC-WL800 DC Pack which then allows operation from an external DC 12 V source





Specifications

	WRR-850A	WRR-840A	WRR-820A
Oscillator	Crystal-controlled PLL synthesizer	Crystal-controlled PLL synthesizer	Crystal-controlled PLL synthesizer
Type of Reception	110KF3E	110KF3E	110KF3E
Reference Deviation	± 5 kHz	± 5 kHz	± 5 kHz
Selectivity	More than 60 dB	More than 50 dB	More than 50 dB
Spurious Rejection	More than 80 dB	More than 60 dB	More than 60 dB
Frequency Range	50 Hz to 15,000 Hz ± 3 dB	100 Hz to 15,000 Hz	100 Hz to 15,000 Hz
Signal-to-noise Ratio	More than 60 dB (A-weighted)	More than 60 dB (A-weighted)	More than 60 dB (A-weighted)
Harmonic Distortion	Less than 1.0% at 1 kHz	Less than 1.0% at 1 kHz	Less than 1.0% at 1 kHz
RF Muting Level	15 dBµ, 25 dBµ or 35 dBµ	_	_
Audio Output Level	-20 dBm or -58 dBm	-20 dBu (-26 dBm), -40 dBu (-46 dBm) or -60 dBu (-66 dBm), XLR-3-32 type -20dBu (-26 dBm) or -41dBu (-47 dBm), Phono type	-20 dBu (-26 dBm), -40 dBu (-46 dBm) or -60 dBu (-66 dBm), XLR-3-32 type -20 dBu (-26 dBm) or -41 dBu (-47 dBm), Phono type
Audio Output Connector	XLR-3-32 type	XLR-3-32 type Phono type	XLR-3-32 type Phono type
Antenna Connector	BNC type	BNC type	BNC type
Monitor Connector	1/4-inch stereo phone type	1/4-inch stereo phone type	1/4-inch stereo phone type
Power Requirements	AC 120 V, 60 Hz	AC 120 V, 60 Hz	AC 120 V, 60 Hz
Power Consumption	30 W	20 W	12 W
Operating Voltage	-	-	_
Current Consumption	-	_	_
Dimensions	482 (W) x 44 (H) x 300 (D) mm (19 x 1 ³ / ₄ x 11 ⁷ / ₈ inches)	482 (W) x 44 (H) x 300 (D) mm (19 x 1 ³ / ₄ x 11 ⁷ / ₈ inches)	482 (W) x 44 (H) x 300 (D) mm (19 x 1 ³ / ₄ x 11 ⁷ / ₈ inches)
Mass	5.4 kg (11 lb 15 oz)	5.4 kg (11 lb 15 oz)	4.9 kg (10 lb 13 oz)
Supplied Accessory	AC power cord	_	-

^{*0} dBµ=0.775 Vms

	WRR-860A	WRR-855A	WRR-810A
Oscillator	Crystal-controlled PLL synthesizer	Crystal-controlled PLL synthesizer	Crystal-controlled PLL synthesizer
Type of Reception	110KF3E	110KF3E	110KF3E
Reference Deviation	± 5 kHz	± 5 kHz	± 5 kHz
Selectivity	More than 60 dB	More than 60 dB	More than 60 dB
Spurious Rejection	More than 80 dB	More than 80 dB	More than 50 dB
Frequency Range	100 Hz to 15,000 Hz	100 Hz to 15,000 Hz	100 Hz to 15,000 Hz
Signal-to-noise Ratio	More than 60 dB (A-weighted)	More than 60 dB (A-weighted)	More than 60 dB (A-weighted)
Harmonic Distortion	Less than 1.0% at 1 kHz	Less than 1.0% at 1 kHz	Less than 1.0% at 1 kHz
RF muting Level	5 dBμ, 15 dBμ, 25 dBμ or OFF selectable	10 dBµ or OFF selectable	15 dBµ
Audio Output Level	-58 dBm	-40 dBm	-58 dBm
Audio Output Connector	XLR-3-12C type	D-sub 15-pin	SMC9-4S
Antenna Connector	BNC-R type	BNC-R type	BNC-R type
Monitor Connector	3.5 mm dia. stereo mini jack	-	-
Power Requirement	-	-	-
Power Consumption	_	_	_
Operating Voltage	6 V, AA-size (LR6) alkaline batteries (x 4) or 12 V, external DC	DC 7 V	3.0 V, AA-size (LR6) alkaline batteries (x 2)
Current Consumption	Less than 190 mA at DC 6 V (w/batteries) or 100 mA at external DC 12 V	Less than 200 mA at external DC 7 V	Less than 180 mA at 3.0 V
Dimensions	97 (W) x 131 (H) x 33 (D) mm (3 ⁷ / ₈ x 5 ¹ / ₄ x 1 ⁵ / ₁₆ inches)	88 (W) x 118.8 (H) x 31.3 (D) mm (3 ½ x 4 ¼ x 1/4 inches)	63 (W) x 120 (H) x 17 (D) mm (2 ¹ / ₂ x 4 ³ / ₄ x ¹¹ / ₁₆ inches)
Mass	500 g (1 lb 2 oz) w/batteries	280 g (9.9 oz)	220 g (7 oz) w/batteries
Supplied Accessories	1/4 wave length antenna (x 2) Output cable (x 1) DC cable (x 1) Holder kit for Betacam Camcorder (x 1) Attachment case (x 1) Battery case (spare) (x 1) Shoulder strap (x 1)	1/4 wave length antenna (x 2)	1/4 wave length antenna (x 1) Output cable (x 2) Holder kit for Betacam Camcorder (x 1)

*0 dBµ=0.775 Vms.

	DC-WL800
Input DC Power	10 V to 17 V
Output DC Power	3 V
Load Current	250 mA
Mass	50 g (1.8 oz)

AN-820A

UHF Antenna

•Built-in RF amplifier •Easy installation on a wall or in a microphone stand with the supplied stand adaptor •LED indication for installation check •External power supply provided from the WRR-801A/820A/840A or the WD-820A via coaxial cable





WD-880A

UHF Antenna Divider

•Outstanding multi-channel simultaneous operation

Area	No. of channels	Frequencies band
Pan American	42	770 to 806 MHz (TV64 to TV69)
UK (BC use)	24	774 to 798 MHz (TV59 to TV61)
Norway (Non BC)	24	800 to 820 MHz (TV62 to TV64)
Australia	20	792 to 806 MHz (TV66 to TV67)
Japan	34	779 to 788 MHz (A2) 797 to 810 MHz (A/B)



•Ideal for complex, multi-channel applications from large scale live music events to TV OBs and large theater productions •Stable reception minimizing interference and distortion •Bandpass filters divide the spectrum of TV channels into multiple frequency bands which are output from the WD-880A •Dual inputs and outputs for diversity operation •DC 9 V or 12 V power supply to operate AN-820A antennas or K-1237 antenna boosters •LED indications to show the output connection status •1U size rack mountable

WD-820A

UHF Antenna Divider

•Connection of up to 4 diversity distribution outputs •Cascade connections •Connection of up to 2 pair antennas •DC 9 V power supply for the AN-820A UHF antenna



Specifications

	WD-820A	WD-880A
Channel Distribution	2 inputs/4 outputs (x 2)	2 input/5 TV-CH outputs (x 2) for J 1 input/6 TV-CH outputs (x 2) for U 1 input/3 TV-CH outputs (x 2) for CE 2 input/3 TV-CH outputs (x 2) for AU
Input/Output VSWR	Less than 3.0	-
Input/Output Impedance	50 Ω	50 Ω
Cascade Output	1 output (x 2)	-
Power Supply for Antenna Booster (supplied from antenna input connectors)	DC 9 V	DC 12 V/9 V/OFF switchable
Power Consumption	6 W +outlet 300 W max.	16 W
Dimensions	482 (W) x 44 (H) x 300 (D) mm (19 x 1 ³ / ₄ x 11 ⁷ / ₈ inches)	482 (W) x 44 (H) x 300 (D) mm (19 x 1 ³ / ₄ x 11 ⁷ / ₈ inches)
Mass	4.2 kg (9 lb 4 oz)	4.5 kg (9 lb 15 oz)
Supplied Accessories	AC power cord (x 1) 50 Ω BNC terminators (x 6)	AC power cord (x 1)

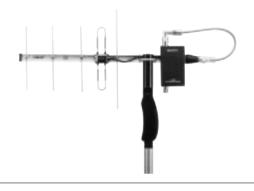
K-1236

UHF Antenna

K-1237

UHF Antenna Booster Unit

•Two way powering of 2 AA-size (LR-6) alkaline batteries which provide approx. 6 hours of continuous operation or external DC 10 V to 17 V



K-1234

Tuner Base Unit

•Up to 6 units of the WRR-860A can easily plug into the K-1234 •An LCD display and the channel switches provide the same operation information as the WRR-860A •Suitable for outside shooting •Switchable output level LINE(-20 dBm) or MIC(-58 dBm) •Built-in antenna divider •Equipped with cascade output connectors •AC 100 V to 120 V and 200 V to 240 V / DC 12 V two way power requirement system •Power supply for the K-1237 booster



EC-1.5CF

Microphone cable for WRT-822A

•Connectors: SMC9-4P, XLR-3-11C type

•Length: 1.5 m (4.9 feet)

K-1161

Microphone cables for connection between AN-820A, WRR-820A/840A and WD-820A

•Connectors: SMC9-4P, Phone

•Length: 0.7 m

WBC Coaxial Cables

50 Ω coaxial cables with BNC connectors

Model	Length (m)	Connector (x 2)	Cable (50 Ω)		(dB) 1000 MHz	Mass (g)
WBC-0.6B-P	0.6	BNC-P (UG-88/U)	RG-58 A/U			70
WBC-10B-5P	10	BNC-P-5	5D-2 V	2.2	3.5	800
WBC-20B-5P	20	BNC-P-5	5D-2 V	4.4	7.0	1600
WBC-30B-5P	30	BNC-P-5	5D-2 V	6.6	10.5	2400
WBC-50B-5P	50	BNC-P-5	5D-2 V	11.0	17.5	4000

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Common Accessories

BVG-1500	298
BVG-1600	298
BKG-1501	
BVF-V20W/V20WCE	299
BVF-VC10W	
BVF-V10/V10CE	300
CA-755/755P	300
CA-701	301
CA-702/702P	301
BZP-100	302
RM-P9	
RM-B150	303
VA-5/5P	303
BSC-1-Pack	303
CAC-6	304
BKW-401	304
VCT-14	304
BP-L60A	
BC-L100/L100CE	305
BC-L50/L50CE	
AC-DN1	305
AC-DN2A	
BKP-L551	306
BKW-L403	306
BKW-L404	306
BKW-L601	306
DC-L90	307
DC-L1	307
DC-L10	307
BP-90A	307
NP-1B	308
BC-410/410CE	308
BC-1WD/1WDCE	
AC-550/550CE	308
DC-210	309
DC-300	309
DC-310	309
DC-500	309
DC-520	310

BVG-1500(NTSC)

Time Code Reader

•Readout capability of LTC/VITC and user bits •Built-in character generator •8-digit LED display/display hold •Waveform processing function (LTC) •Various mode indication •Frame suppress function •Compact and lightweight •TTY interface capability with BKG-1501 (optional)

Specifications

Power requirements: AC 100 to 120/220 to 240V, 50/60Hz

Power consumption: 20W

Dimensions: $424(W) \times 44(H) \times 330(D)$ mm $(16^{3}/4 \times 1^{3}/4 \times 13 \text{ inches})$

Mass: 4 kg (8 lb 13 oz)





BVG-1600(NTSC)

Time Code Generator

•LTC/VITC generator •Hexadecimal user bits data setting •Normal speed LTC reader function •Slave/Extrapolation capability •Time code color frame lock capability •8-digit LED display •Various mode indications

Specifications

Power requirements: AC 100 to 120/220 to 240V, 50/60 Hz

Power consumption: 20W

(16³/₄ × 1³/₄ × 13 inches) 4.5 kg (9 lb 15 oz)

Mass: 4.5 kg (9 lb 15 oz)





BKG-1501

Printer Interface for BVG-1500/1500PS



BVF-V20W/V20WCE

Electronic B/W CRT viewfinder

•2-inch 16:9 widescreen B/W CRT viewfinder for camcorder such as DVW-709WS/790WS series and DNW-9WS/90WS series •High resolution—600TV lines at center in both 16:9 and 4:3 modes •Diagonal size is 1.5-inch in 4:3 mode and 2.0-inch in 16:9 mode to ensure easy focusing even in 16:9 mode •16:9/4:3 automatic switching—when used in 16:9 mode, 4:3 limits and box cursors can be selected from the camera to help in shooting 16:9 material that may be converted later into the 4:3 standard •The eye-piece is removable from the viewfinder to allow direct view of the CRT •Tally lamp for camera operatior is located on the viewfinder body for operational convenience. So that, the tally lamp can be seen even when not looking at the viewfinder screen. It also can be masked with a sliding cover.

Supplied accessories: Cushioned eyecup (1)

Operation manual (1)

Optional accessories: BKW-401, viewfinder rotation bracket Fog-proof filter (Part No. 1-547-341-11)

Lens assembly (farsighted) (-2.8 D to +2.0D,

Part No. A-8262-537-A)

Lens assembly (low magnification) (-3.6D to -0.8D,

Part No.A-8262-538-A)

Lens assembly (standard magnification with special compensation for aberrations)

(-3.6D to +0.4D, Part No.A-8267-737-A) Lens assembly (high-performance triple

magnification)

(-3.6D to +0.4D, Part No.A-8314-798-A) Cushioned eyecup: Pad (Part No.X-3678-187-1)

Attachment (Part No.3-682-494-

02)

Specifications



General

Power requirements: power consumption:

 -20° C to + 45°C (-4° F to + 113°F) Operating temperature: -20°C to +60°C (-4°F to +140°F) Storage temperature: External demensions: 239(W) × 76(H) × 206.5(D) mm (9½ × 3 × 8¼ inches)

Mass: 580a (1lb 4 oz)

Performance

Horizontal resolution: Indicators:

2-inch monochrome 600TV lines (at center) REC/TALLY, BATT, VTR SAVE.!

BVF-VC10W

Electronic Color viewfinder

•1.35-inch 16:9 widescreen color LCD viewfinder for camcorder such as DVW-707/709WS/790WS series and DNW-9WS/90WS series •Incorporates 1.35-inch wide aspect TFT active matrix color LCD panel with 510,000 dots •Attains non-interlace, high vertical resolution and less flicker by using Sony Line Doubler (Double-speed conversion) •High resolution of 400TV lines in both 16:9 and 4:3 modes with excellent color gradation capable of showing the finest detail •16:9/4:3 automatic switching—when used in 16:9 mode, 4:3 limits and box cursors can be selected from the camera to help in shooting 16:9 material that may be converted later into the 4:3 standard •Peaking is shown in yellow for easy focusing •World-wide model—automatically responds to the video system, NTSC or PAL •Attains a sharper picture and less power consumption via component signal input when used with DNW-9WS/90WSP series •High performance triple magnification lens for better visibility •The eye-piece is removable from the viewfinder to allow direct view of the LCD •Tally lamp for camera operatior is located on the viewfinder body for operational convenience. So that, the tally lamp can be seen even when not looking at the viewfinder screen. It also can be masked with a sliding cover.

Supplied accessories: Cushioned eyecup (1)

Operation manual (1)

Optional accessories: BKW-401, viewfinder rotation bracket

Fog-proof filter (Part No. 1-547-341-11) Lens assembly (farsighted) (-2.8 D to +2.0D) (Part

No. A-8262-537-A)

Lens assembly (low magnification) (-3.6D to -0.8D) (Part No. A-8262-538-A)

Lens assembly (standard magnification with special



compensation for aberrations) (-3.6D to +0.4D) (Part No. A-8267-737-A)

Specifications . General

Power requirements: **DC 12V**

4.9W (with DNW Series camcorders) power consumption: 5.9W (with DVW Series camcorders)

Operating temperature: Storage temperature: External dimensions:

0°C to +45°C (+32°F to +113°F) 0°C to +60°C (+32°F to +140°F) 239(W) × 80(H) × 207(D) mm $(9\frac{1}{2} \times 3\frac{1}{4} \times 8\frac{1}{4} \text{ inches})$ 715g (1lb 9 oz)

Mass:

Performance

I CD:

Screen size: 1.35-inch Number of active dots:

512.880 (16:9) 383,760 (4:3) 400TV lines

Horizontal resolution:

Indicators

REC/TALLY, BATT, VTR SAVE, !

Active matrix TFT LCD

BVF-V10/V10CE

Electronic B/W CRT viewfinder

•1.5-inch 4:3 standard B/W CRT viewfinder for camcorder such as DVW-707 series and DNW-7/90 series •High resolution—600 TV lines •The eye-piece is removable from the viewfinder to allow direct view of the CRT

Supplied accessory: Operation manual (1)

Specifications

General

Power reequirements: DC9.3V power consumption: 1.6W

 $\begin{array}{lll} \mbox{Operating temperature:} & -20\mbox{°C to } +45\mbox{°C } (-45\mbox{°F to } +113\mbox{°F}) \\ \mbox{Storage temperature:} & -20\mbox{°C to } +60\mbox{°C } (-4\mbox{°F to } +140\mbox{°F}) \\ \mbox{External dimensions:} & 229(W) \times 76(H) \times 215(D) \mbox{ mm} \\ \mbox{$(91\%$ \times 3 \times 81\%$ inches)$} \\ \mbox{Mass:} & \mbox{Approx. 530g (1 lb 3 oz)} \end{array}$

Performance

CRT: 1.5-inch monochrome
Horizontal resolution: 600 TV lines (at center)
Signal system: BVF-V10: EIA standards
BVF-V10CE: CCIR standards

Indicators: REC/TALLY, BATT



CA-755(NTSC)/**CA-755P**(PAL)

Triax CCU Adaptor for DVW-707/709WS/790WS series and DNW-7/9WS/90/90WS series

•Provides an interface with the Sony Camera Command System so as to achieve the benefits of high-speed, real-time control and instant tactile response •Furnished with a triax cable interface for use with the CCU-550A/700A series Camera Control Unit •High picture quality •Direct connection with the camcorder via the camcorder's built-in 40-pin connector •Long signal transmission capability of up to 600m of Ø8.5mm and 1200m of Ø14.5mm triax cable •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Compact and lightweight of 1.9kg (4 lb 3 OZ)

Maintenance manual (1) Cable clamp (1)

M3/M4 screws for cable clamp (2 x 2)

Specification

General

Power consumption: Approx. 13W Approx. 13W 1.9kg (4 lbs 3 oz)

Input/output connectors

DC IN: XLR-4-pin type, 11.5V to 17V RET OUT: BNC-type, 1.0Vp-p, 75 Ω

RETURN CONTROL: 6-pin

EARPHONE: MINI-JACK, 8Ω

CAMERA: 40-pin (DVW-700/700WS series, DNW-7/9WS/90/90WS series)

CCU: (PAL) Fischer type triax connectors (1) (NTSC) Kings type triax connectors (1)

INCOM/PGM: Headset XLR-5-pin type



CA-701(NTSC/PAL)

Camcorder Adaptor for DVW-707/709WS/790WS series. DNW-7/9WS/90/90WS series and DNV-5

•4-channel audio recording capability •Access to audio channels 3 and 4 via connectors (XLR × 2) •Microphone phantom power •Independent input level control and metering for channels 3 and 4 •Two SDI output (BNC × 2) •Compact and light weight with low power consumption •Versatile audio monitoring •Direct connection to the camcorder via the camcorder's built-in 40-pin connector •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Flexible power connections

Supplied accessories: Operation manual (1)

Maintenance manual (1)

Optional accessories: BC-155 expansion board

BP-L60, BP-L90 battery pack DC-L1, DC-L90 battery adaptor

WRR-860A UHF synthesized diversity tuner

AC-550/550CE AC adapor BVF-55/55CE 5-inch viewfinder

Rain-proof cover (Part No.3-188-446-01)

Specification

General

Power requirement: Approx. DC12V + 5.0/-1.0V

Power consumption: Approx. 7W

Operating temperature: $0^{\circ}\text{C to } + 40^{\circ}\text{C } (+32^{\circ}\text{F to } +104^{\circ}\text{F})$ Storage temperature: $-20^{\circ}\text{C to } + 60^{\circ}\text{C } (-4^{\circ}\text{F to } +104^{\circ}\text{F})$ Humidity: 25% to 85% (relative humidity) Approx. 1.0 kg (2 lb 3 oz)



Input/output connectors

AUDIO IN CH-3/4: XLR-3-31 type (female) (2)

(-60dBu/+4dBu, 0 dBu equals 0.775 Vrms)

AUDIO OUT: XLR-5-pin type, male (stereo)
DC IN: XLR-4-pin type, male, 11 to 17 V
DC OUT: 4-pin, 11 to 17 V, maximum current 0.1 A

SDI OUT: BNC type \times 2, 0.8 Vp-p, 75 Ω

CAMERA: 40-pin

CA-702(NTSC)/702P(PAL)

Camcorder Adaptor for DVW-707/709WS/790WS series, DNW-7/9WS/90/90WS series and DNV-5

•External SDI or analog composite input signal recording capability •SDI or analog component signal output capability via a CCZ 26-pin connector •SDI or analog composite output via a BNC connector •Compact and light weight with low power consumption •Direct connection to the camcorder via the camcorder's built-in 40-pin connector •Able to be used with the BVF-55/55CE 5-inch monochrome viewfinder •Flexible power connections

Supplied accessories: Operation manual (1)

Maintenance manual (1)

Optional accessories: BC-155 expansion board BP-L60, BP-L90 battery pack

BP-L60, BP-L90 battery pack DC-L1, DC-L90 battery adaptor

WRR-860A UHF synthesized diversity tuner AC-550/550CE AC adapor

BVF-55/55CE 5-inch viewfinder

Rain-proof cover (Part No.3-188-446-01)

Specification

General

Power consumption: MAX. 5.5W Mass: Approx. 0.9kg (2lb)

Dimensions: $165(w) \times 195.5(H) \times 65(D) \text{ mm}$

Input/output connectors

DC IN: XLR-4-pin type, male

 DC OUT:
 4-pin

 SDI/Composite IN:
 BNC type (1)

 SDI OUT:
 BNC type (1)

 CAMERA:
 40-pin

 VTR:
 CCZ-26-pin



BZP-100

Camera PC Set-up Unit

•Easy Camera Set-up with GUI-based Operation •Multiple camera set-up with Data Filing Function •Flexible operation to meet a wide-range of technical requirements in daily operation •Picture Matching can be instantly and simultaneously completed from a remote PC

•BZP-100 PC control can share control with RCPs and MSUs in a Camera Network System including CNU, CCU, MSU and RCP •Interface Box (Protocol/ Command Converter)—facility to convert Sony Camera Remote/New Command protocol from/to ISR protocol •Combined with Sony ISR system software to make cameras and camcorders ISR compliant

Supplied accessories SONAM warranty card (1)

Customer inquiry card (1)

SVI card (1)

Examination data sheet (1) Operating instructions (1) Operation manual (1) Maintenance manual (1)

PC interface cable (RS-232C 9-pin cross cable) (1) RIM interface cable (6-pin remote control cable) (1) CCA-5-10 cable (8-pin to 8-pin remote control cable) (1)

Specifications

interface Box

Mass: 230g (8.1 lb)

Dimensions: $25(H) \times 82(W) \times 120(D)$ mm

 $(1 \times 3^{1/4} \times 4^{3/4} \text{ inches})$

Bracket

Dimensions: $45(W) \times 145(D)$ mm

 $(1^{13}/_{16} \times 5^3/_4)$ inches)



RM-P9

Remote Control Unit

•Designed to control field portable cameras such as the BVP-950/570/550 series. DVW-790WS/709WS/707 series. BVW-D600 series and DNW-7/9WS/90/90WS series

Supplied accessories: 6-pin remote control cable (10m)

Operation and maintenance manual

Specifications

Power consumption: 0.5W

Mass: 500 g (1 lb 2 oz) 86(W) × 179(H) × 65(D)mm Dimensions: $(3\frac{1}{2} \times 7\frac{1}{8} \times 1\frac{7}{8} \text{ inches})$

Remote control connector: 6-pin BNC type Output connector:



RM-B150

Remote Control Unit

Designed to control field portable cameras such as the DVW-707/709WS/790WS, HDC-750A, BVP-950/950P/570, CA-570/550/530 and HDW-700A series HDCAM

camcorders.

Supplied accessories: Remote control cable (10 m)

> Operation manual (1) Maintenance manual (1)

Specifications

0.5 kg (1 lb 2oz)

Dimensions (W/H/D): $86 \times 67 \times 179 \text{ mm}$ (3 $\frac{1}{2} \times 2 \frac{3}{4} \times 7 \frac{1}{8} \text{ inches}$) Power requirement: 3 W (max.), 1.3 W (with the Menu Display off),

1.8 W (with the Menu Display on) -20 °C to +45 °C (-4 °F to + 113 °F) Operating temperature: Storage temperature: -20 °C to + 60 °C (-4 °F to + 132 °F)

Remote control connector: 8-pin Output connector: BNC type



VA-5(NTSC)/5P(PAL)

Component/Composite VTR Adaptor

•Enables BVV-5/5PS to be connected via cables to a single source •Component or composite signals can be connected via 26-pin connector •Additional composite signal input via BNC connector •Two audio level meters provided •Recorder control provided on top panel •Tape remaining indicator

Supplied accessories: Shoulder belt

Operation and maintenance manual

Specifications

Power requirements: DC 12V +5.0/-1.0V Power consumption: Max. 8W (Composite I/P) Max. 2.5W (Component I/P)

Mass: Approx. 1.2 kg (2 lb 2 oz)

Dimensions: 90(W) × 222(H) × 148(D)mm (35% × 83/4 × 53/4 inches)



BSC-1-Pack

Setup Card for the DVW-707/709WS/790WS series, BVW-D600 series and DNW-7/9WS/90/90WS series, **HDW-700A**

Package of four Setup Cards and soft case

Specifications

<As a card>

Mass: 3 q (0.1 oz)

 $34(W) \times 22(H) \times 2(D)$ mm Dimensions:

 $(1\% \times 7\% \times 3\%2 \text{ inches})$

<As a pack>

Mass: 62 q (2 oz)

Dimensions: 105(W) × 75(H) × 12(D)mm

 $(4\frac{1}{8} \times 3 \times \frac{15}{32} \text{ inches})$



CAC-6

Return Video Selector for Studio and Portable Camera



BKW-401

Viewfinder Rotation Bracket for BVW-D600 series, DNW-7/9WS/90/90WS series and DVW-790WS/709WS/707 series

Specifications

185 g (6.5 oz)

 $110(\overset{\smile}{(W)}\times81(\overset{'}{H})\times45(D)~mm$ Dimensions: $(4\frac{3}{8} \times 3\frac{1}{4} \times 1\frac{13}{16} \text{ inches})$

Lotation range:



VCT-14

Tripod adaptor

Dimensions: Approx. $282(W) \times 27(H) \times 80(D)mm$

(111/8 × 11/8 × 31/4 inches) Mass:

Approx. 900g (2 lb)



BP-L60A

Rechargeable Lithium Ion Battery Pack

•High capacity lithium-ion battery •No "Memory Effect" •Builtin LED capacity indicator for a quick visual check of the remaining charge •V-shoe attachment for quick and easy battery change

Specifications

Type of battery: Lithium-ion rechargeable

Maximum voltage: 16.8V Nominal voltage: 14.4V Current capacity: 60Wh 5.4Ah Cell capacity:

Operating temperature: -20°C to +45°C (-4°F to +113°F)

Dimensions: $101(W) \times 168.7(H) \times 37(D) \text{ mm } (4 \times 6\frac{3}{4} \times 1\frac{1}{2} \text{ inches})$

900g (1 lb 16 oz) Mass:



BC-L100/L100CE

Battery Charger for BP-L60A

•Up to four BP-L60As can be charged •BP-90A and NP-1B Ni-Cd batteries can also be charged with the use of optional DC-L1 and DC-L90 battery cases •Four batteries of any type or any combination of these can be charged at a time

Supplied Accessories: AC power cord (1)

Specifications

AC100V to 240V, 50/60Hz Power requirements: Output: DC 16.8V, 4.4A

Power consumption: 110W

BP-L90: BP-L60: 210 min Charging time: 150 min

BP-90A: 150 min NP-1R 70 min

Operating temperature: 0°C to +40°C (+32°F to +104°F) -20°C to +60°C (-4°F to +140°F) Storage temperature:

Approx. 2Kg (4 lb 7 oz) 144(W) \times 131(H) \times 330(D) mm (5 3 /4 \times 5 1 /4 \times 13 inches) Dimensions:



BC-L50/L50CE

Battery Charger for BP-L60A

•Up to two BP-L60As can be charged •BP-90A and NP-1B Ni-Cd Batteries can also be charged with the use of optional DC-L1 and DC-L90 battery cases •Two batteries of any type or any combination of these can be charged at a time

Specifications

Power requirements: AC 120 V 50/60 Hz DC 16.8 V. 2.2 A Output: Approx. 49 W Power consumption:

Operating temperature: -5 °C to +40 °C (+23 °F to +113 °F) -20 °C to +60 °C (-4 °F to +140 °F) Storage temperatrure: Mass: Approx. 1.1 kg (2 lb 6 oz) Dimensions: $60(W) \times 191(H) \times 130(D)$ mm

 $(2\ 3/8 \times 7\ 5/8 \times 5\ 1/8\ inches)$



AC-DN1

AC Adaptor

Power requirements: AC 100V to 240V 50W (90VA) or less Power consumption:

38W Power output (DC): Voltage output (DC): 16.7V Mass: 660g

112(W) × 169(H) × 38(D)mm Demensions: Charging time: BP-L60A 4hr. (to about 85% capacity) BP-L90A 6hr. (to about 85% capacity)

DC power cord (1) Supplied accessories:

BKW-L601/1 (1)



AC-DN2A

AC Adaptor

Power requirements: AC 100V to 240V

Power consumption: 180W 150W Power output (DC): Voltage output (DC): 16.7V Mass: 1kg

112(W) × 169(H) × 70(D)mm Demensions: BP-L60A 4hr. (to about 85% capacity) Charging time: BP-L90A 6hr. (to about 85% capacity)

Supplied accessories: DC power cord (1)



BKP-L551

Li-ion Battery Adaptor

•With the BKP-L551, the BP-L60 can be used with the CA-550/57A/55A/50A/3A/550P/57AP/50AP

•The BKP-L551 can be directly attached to the rear part of the CAs by using screws or through a battery table assembly



BKW-L403

Battery Adaptor

•Enables the Betacam SP camcorders BVW Series and onboard recorder the BVV-5/P to incorporate the BP-L60A Lithium-ion Batteries.

•Provides power from the BP-L60A Lithium-ion Batteries to on-camera lighting equipment.

Specifications

Dimensions: 85.4(W) x 144.8(H) x 21.6(D) mm (3 3/8 x 5 11/16 x 7/8 inches)

Mass: Approx 200 g (7 oz)

Mass: Approx. 200 g (7 oz) Supplied accessories: Tuner rack(1)

4-pin round connector(1)

Power supply extension screws(2)

Screws(4)



BKW-L404

Battery Adaptor

•Provides power from the BP-L60A Lithium-ion Batteries to portable video equipment of DC 12V input such as monitor, portable VTR and to maximum 12V 100watts light.

Specifications

Dimensions: 173(W) x 89.9(H) x 35(D) mm (6 7/8 x 3 5/8 x 1 7/16 inches)

Mass: Approx. 465 g (16.5 oz) with carrying belt

Supplied accessories: Carrying belt(1)



BKW-L601

Battery Adaptor

•Enables the BVW Series Betacam SP camcorders to incorporate the BP-L60 Lithium-ion Batteries

•V-shoe attachment for quick and easy battery change

Specifications

Dimensions: $89(W) \times 141.4(H) \times 14.2(D) \text{ mm}$

 $(3\frac{5}{8} \times 5\frac{5}{8} \times \frac{9}{16} \text{ inches})$

Mass: 110g (4 oz)



DC-L90

Battery Case for BP-90A

•Battery Case for a BP-90A battery to be used with the camcorders/portable editors which incorporates the V-shoe attachment •Quick and easy battery change

Specifications

Mass: 620g (1 lb 6 oz)





DC-L1

Battery Case for NP-1B

•Battery Case for a NP-1B battery to be used with the camcorders/portable editors which incorporates the V-shoe attachment •Quick and easy battery change

Specifications

Dimensions: $101(W) \times 196.2(H) \times 54.8(D) \text{ mm}$

 $(4 \times 7^{3/4} \times 2^{1/4} \text{ inches})$

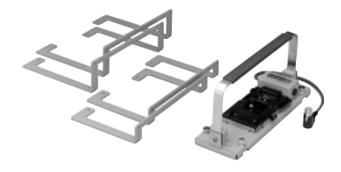
Mass: 300g (11 oz)



DC-L10

Battery Adaptor

•Attaches a rechargeable Lithiun-Ion Battery Pack BP-L60A to a PVM-8045QD/9045D with this adaptor. •Retractable handle •Easily detachable upper part of adaptor bracket



BP-90A

Rechargeable Battery Pack

Specifications

Type of battery: Ni-Cd rechargeable

Voltage: DC 12V Current capacity: 5Ahr

Dimensions: $123(W)\times171(H)\times37(D)mm \\ (4\%\times6\%\times1\%) \text{ inches})$

Mass: 1.6 kg (31 lb 8 oz)



NP-1B

Rechargeable Battery Pack

Specifications

Type of battery: Ni-Cd rechargeable

Voltage: **DC 12V** Current capacity: 2 3 Ahr

 $72(W) \times 25(H) \times 185(D)mm$ Dimensions: $(2\% \times 1 \times 7\% \text{ inches})$

600 g (1 lb 5 oz) Mass



BC-410/410CE

Battery Charger for BP-90A/NP-1B

•Battery charger for BP-90A and NP-1B •Up to four BP-90As and four NP-1Bs can be charged •Battery refreshing function •Trickle charge to avoid self-discharge

Supplied accessories: AC power cord

Operation and maintenance manual

Specifications

AC 100/120/220/240V selectable, 50/60Hz Power requirements:

Power consumption: 75W

Charging time: BP-90A: 160 min NP-1B: 90 min

Mass: 4 kg (8 lb 13 oz)

 $212(W) \times 85(H) \times 325(D)$ mm Dimensions:

 $(4\frac{1}{2} \times 3\frac{3}{8} \times 12\frac{7}{8} \text{ inches})$



BC-1WD/1WDCE

Battery Charger for NP-1B

•Battery charger for the NP-1B battery pack •Up to four NP-1B batteries can be charged •Auto refresh function •Battery life indication •Skips charging process for fully charged batteries

Supplied accessories: AC power cord

Operation and maintenance manual

Specifications

AC 120V ± 10%, 50/60Hz (BC-1WD) Power requirements:

AC 220 to 240V ± 10%, 50/60Hz (BC-1WDCE)

Power consumption: 65W

Approx. 90 min. Charging time:

1.7 kg (3 lb 5 oz) Mass

 $107.\bar{5(W)}\times88(\dot{H)}\times325(D)mm$ Dimensions:

 $(4^{1}/_{4} \times 3^{1}/_{2} \times 12^{7}/_{8} \text{ inches})$



AC-550/550CE

AC Adaptor

•Supplies DC power to a Sony portable camera and portable VTR through the 26-pin (CCZ-type) camera connector or XLR-4-pin DC OUT connector

Supplied accessories: AC power cord

DC power cord

Operation and maintenance manual

Specifications

Power requirements: AC 110 to 120V/220 to 240V ±10% selectable,

60Hz (AC-550)/50Hz

(AC-550CE) Max. 130W

Power consumption: 13.5V, 7A DC output:

Input/Output Connectors: CAMERA: CCZ-type 26-pin

VIDEO OUT: BNC type MIC OUT: Equivalent to XLR-3-31

DC OUT: Equivalent to XLR-4-31

EXT VBS: BNC type

Dimensions: $217(W) \times 91(H) \times 327(D)$ mm

(85% × 35% × 127% inches) Mass: 3.8kg (8 lb 6 oz)



DC-210

Battery Case for BP-90A

•Battery case for one BP-90A battery pack •Supplies DC 12V to Sony video equipment

Supplied accessories: Power cord (1.2m) \times 1

Belt

Specifications

Dimensions: $145(W) \times 180(H) \times 85(D)$ mm

 $(5\frac{3}{4} \times 7\frac{1}{8} \times 3\frac{3}{8} \text{ inches})$

Mass: 500 g (1 lb 2 oz)



DC-300

Battery Case for BP-90A

•BP-90A battery case (one BP-90A) for BVW-300A/400A camcorder and CA-3A/50A/55A/57A equipped cameras

Specifications

Dimensions: $163(W) \times 185(H) \times 47(D)mm$

 $(6\frac{1}{2} \times 7\frac{3}{8} \times 1\frac{7}{8} \text{ inches})$

Mass: 540 g (1 lb 3 oz)



DC-310

Battery Case for two NP-1Bs

•Battery case for BVW-300A/400A camcorder and CA-3A/50A/55A/57A equipped cameras •Up to two NP-1B batteries can be held

Supplied accessories: Holder (1)

Screws (1 set)

Specifications

Dimensions: $86(W) \times 203(H) \times 77(D) mm \\ (3\frac{1}{2} \times 8 \times 3\frac{1}{2} \text{ inches})$

Mass: 630 g (1 lb 6 oz)



DC-500

Battery Case for BP-90A

•Battery case for one BP-90A battery •Specially designed for the BVV-5/BVW-300A/400A/D600 •Supplies DC 12V

Supplied accessories: Screws (M3 × 5)

Specifications

Dimensions: $147(W) \times 207(H) \times 62(D)mm$

 $(5\frac{7}{8} \times 8\frac{1}{4} \times 2\frac{1}{2}$ inches)

Mass: 400 g (14 oz)



DC-520

Battery Adaptor for an additional NP-1B

•Can be attached to the supplied battery case of the BVV-5 Betacam SP recorder or BVW-300A/400A Betacam SP Camcorder •Allows the BVV-5/BVW-300A/400A to be operated with two NP-1B batteries •Supplies DC 12V to the BVV-5/BVW-300A/400A/D600

Supplied accessories: Screws (M3 \times 6)

Specifications

Dimensions: $100(W)\times195(H)\times44(D)mm$ $(4\times7\%\times1\%\text{ inches})$

Mass: 230 g (8 oz)



21

Cables

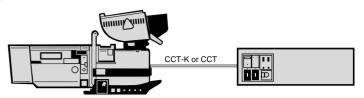
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CCT-K Cables(NTSC)/CCT Cables(PAL)

Triax Cable for CCU-355/370/550A/700A, DCU-371WS

CCT-K50/50: 50m (164ft) CCT-K100/100: 100m (328ft) CCT-K150/150: 150m (492ft) CCT-K300/300: 300m (984ft)

•BVP-900/950/500/550 series—CCU-700A/550A
•DNW-7/9WS/90/90WS with CA-755—CCU-550A
•DVW-790WS/709WS/707 series with CA-755—CCU-550A
•DVW-790WS/709WS/707 series with CA-705—CCU-355

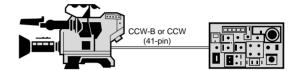


CCW-B Cables (for CCU-350 only) **CCW Cables**

41-pin—41-pin Camera Cable for CCU-350

CCW-B25/25: 25m (82ft) CCW-B50/50: 50m (164ft) CCW-B100/100: 100m (328ft)

•BVP-550/90/70IS/7A/T70 series with CA-50A—CCU-350



CCA-5 Cables

8-pin—8-pin Remote Control Cable for the CNU-700/500 CCU-700A/550A, MSU-700, RCP-700 series, VCS-700 and RM-P9

CCA-5-10: 10m (33ft) CCA-5-3: 3m (10ft)

•CNU-700/500—CCU-700A/550A, MSU-700, RCP-700, RM-P9 series and VCS-700

Sony Camcorder series—RM-P9

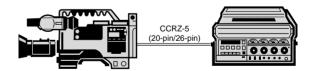
•Sony Camcorder series—RM-B150

CCRZ-5 Cable

20-pin (F)-26-pin (M) Cable for BVW-D600

CCRZ-5: 5m (16ft)

•BVW-D600—BVV-5 with VA-5/BVW-50/DVR-2/DVW-250

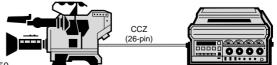


CCZ Cables

26-pin—26-pin Camera Cable

CCZ-2: 2m (6.4ft) CCZ-10: 10m (33ft)

•BVP-950 with CA-570—DNV-5 with VA-5/BVV-5 with VA-5/BVW-50/DVR-2/DVW-250 •BVP-950/570 with CA-530—DNV-5 with VA-5/BVV-5 with VA-5/BVW-50/DVR-2/DVW-250 •BVP-950/570 with CA-550—DNV-5 with VA-5/BVV-5 with VA-5/BVW-50/DVR-2/DVW-250 •BVW-D600 with BKW-402A—DNV-5 with VA-5/BVV-5 with VA-5/BVW-50/DVR-2/DVW-250



FC2-PD Cables

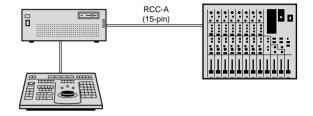
Optical Fiber Cable between HDC-700A/750A and HDCU-700A or between CA-950 and CCU-900

FC2-PD50: 50 m (164 ft) FC2-PD250: 250 m (820 ft)

RCC-A Cables

15-pin—15-pin Remote Control Cable for BVE-2000

RCC-5A: 5 m (16 ft) RCC-11A: 10 m (33 ft) RCC-30A: 30 m (98 ft) •BVE-2000—MXP-290/P390 •BVE-2000—BKE-2010/2011



RCC-G

RCC-G Cables

9-pin—9-pin, Remote Control Cable

RCC-5G: 5 m (16 ft) RCC-10G: 10 m (33 ft) RCC-30G: 30 m (98 ft)



:::: IB 00 BI B **—** ,

•BVE-2000—Sony VTRs equipped with 9-pin control port

•BVE-9100 with BKE-9014—Sony VTRs equipped with 9-pin control port

•BVE-2000—MXP-S390/DMX-E3000/E2000

•BVE-2000—DVS-2000C

•BVE-9100 with BKE-9011—DVS-7350/7300/7250/7200/7150/2000C

•BVE-9100 with BKE-9014—DME-7000/3000

RCC-BG Cables

9-pin Remote Control Cable Combined with a 4-pin DC Power Cable for Connection of BVR-3 and BVW-50/DVW-250

RCC-B5G: 5 m (16 ft) RCC-B10G: 10 m (33 ft) RCC-B30G: 30 m (98 ft)

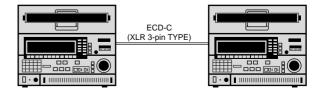
•DVW-250/BVW-50-BVR-3



ECD-C Cables

XLR-3-pin Type—XLR-3-pin Type Digital Audio **Interface Cable**

ECD-3C: 3 m (10 ft) ECD-10C: 10 m (33 ft)



VCD-D Cables

D-sub 25-pin—25-pin Digital Video Interface Cable

VCD-2D: 2 m (6.4 ft) VCD-5D: 5 m (16 ft) VCD-10D: 10 m (33 ft) VCD-30D: 30 m (98 ft)



VDC-C5 Cable

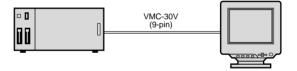
12-pin—12-pin Betacam Dubbing Cable VDC-C5: 5 m (16 ft)



VMC-30V Cable

9-pin—9-pin Color Monitor Cable for BVE-9000/9100 VMC-30V: 30 m (98 ft)

•BVE-9100—CPD-XX sf series



CCDD-X2 Cable

4-pin—4-pin DC power cord for portable video equipment 2 m (8 ft)

•BKW-L404—Portable Video Equipment

CABLES

Memo

Memo

Memo

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^{*}This model is not listed in this catalog. Please refer to the Sony Video and Audio Interfacing Guide Book 1999 (MK 7264V1).



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